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ORIGINAL LECTURES.

CLINICAL LECTURE ON SHOCK AND SURGICAL FEVER.

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Delivered at the Hospital, May 9, 1883.

Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—Having shown you several interesting cases, I now want to speak to you about shock and traumatic fever in connection with two other patients upon whom I operated about a fortnight ago. I always try to tell you just what occurs in my practice here, because I want you to learn, and it is most important that you should understand, elementary principles. I have shown you more or less operating, and have often laid stress upon the importance of preliminary measures; but now I want to say a few words about the after-treatment. The two cases to which I refer are an amputation of the thigh and an excision of the wrist. On Friday last I visited my wards, and was so well satisfied with the condition of these two patients that, having a great deal to attend to, I thought that I could safely leave them on Saturday. I returned on Sunday and found these cases in a deplorable condition. What had taken place between Friday and Sunday? Traumatic fever had developed. Both cases had previously done exceedingly well, and it was then the eleventh or twelfth day after the operation. The man with the excision of the wrist was so well that I told him he might sit up in bed, and had hoped to bring him before you to day. In the case of the amputation there were other troubles that made me more apprehensive as to the result.

On Saturday the daughter of this man came to the hospital to see him. She was not aware that her father had come into this institution. It was a shock to her, but she should not have given way as she did. I am informed by the nurse that she had an hysterical attack, and abused and found fault with her father for a condition of things for which he was not responsible. So it is, among the lower as

well as the higher classes, that we have to contend with interference from the friends and relatives of the patient. I have often seen a man perish much sooner than he would otherwise have done, by the meddling of kind relatives. This poor fellow became feverish and delirious, and never passed from the state of delirium until his death, which occurred this morning. The fever abated and the symptoms improved, but treatment proved ineffectual.

The case of excision of the wrist was one in which I took a particular interest. It required much time and thought. It was a complete excision, involving the lower ends of the radius and ulna, all the carpal bones, and the heads of the middle metacarpal bones. The arteries, nerves, and tendons were all preserved. The operation was entirely successful, and the case progressed most encouragingly until Friday, the tenth day after the operation. On Sunday a change had occurred. There were symptoms of pyæmic inflammation,—of infection of the general system from septic influences in the wound.

To this subject of fever after injuries I wish briefly to call your attention, after first considering the subject of shock. Let me say at the outset that the first effect of any injury or wound, wherever it may occur, is upon the nervous system. The effect upon the nervous system is manifested by disturbance of function and by loss of power, the evidences of which in the system are grouped together under the name of shock. In proceeding to take this up for systematic study it will be necessary first to consider what constitutes shock, next what causes it, its symptoms and course, and, finally, its treatment.

In my remarks I shall quote rather freely from a lecture upon this subject which I delivered a short time since:

“When any accident or injury has been received by the living body, it is through the medium of the nervous system that the immediate effects are communicated. After the action of injurious causes, of whatever nature, a variety of phenomena usually precede the peculiar and morbid state of the blood-vessels, which gives rise to the condition known as inflammation.

“The first result of an injury is characterized by disturbance of function, owing to the impression which the nervous system

has received, and this condition is generally defined as *shock*. When any part has been opposed to any kind of sudden force, it may be rendered torpid without involving the whole constitution. This form of shock has been called partial, in contradistinction to the universal, where the effects of an injury have been more generally propagated, becoming the evidences of what the old surgeons used to call constitutional alarm.

"Although the *causes* of shock are as numerous as the variety of injuries and the intensity and mode of their operation which the body is liable to, they may be classed under four heads:

"1. Those which act on the body itself.

"2. Those which act on the mind.

"3. Those which act on both the body and mind in equal or unequal degrees.

"4. Cold.

"In order to understand how these different causes may act and produce the symptoms of shock, we must bear in mind the intimate relations which exist between the two great divisions of the nervous system, the cerebro-spinal and the ganglionic, for impressions made on the one are communicated to the other.

"The *symptoms* of shock are usually in proportion to the intensity of the impression which the system has received. In the less severe forms we find a paleness or languor and universal sense of coldness, sometimes attended with tremors and fright and hurried respiration. In graver forms there will be a small, intermitting, or tremulous pulse, irregular or sighing respiration, shivering or rigors, with imperfect apprehension and incoherency of mind, frequently complicated with vomiting and convulsions. Again, the patient will be either delirious or comatose, with a cold, clammy sweat and involuntary discharges, presenting the appearance of extreme or protracted syncope. This form has been termed *overwhelming shock*, or *collapse*.

"As many of the most important surgical operations are unavoidably performed during the condition of shock, and as it is likewise one of the most serious complications resulting from many others, modern surgeons have given it the most careful consideration and anxious thought. Among others, Mr. Furneaux Jordan has made use of the thermometer and the sphygmograph,

with the view of giving greater precision to our knowledge of the subject. He has found invariably that during the section of bone the thermometer indicates a fall in temperature, although no change occurs when the soft parts are cut. In many cases of amputation of the thigh, an operation in which the cut surfaces of the soft tissues are perhaps larger than in any other operation, the thermometer indicated a sudden fall of temperature the moment the saw was brought into action upon the bone. He gives in explanation of this the view that, although the nerves are much smaller and fewer in bone than in the skin and soft parts, yet the greater laceration which they are subjected to by the action of the saw gives rise to a greater impression or shock, as manifested by depressed cardiac action and lowered temperature. In his hands the sphygmograph has indicated marked impairment in the circulation during the existence of any depressing influence upon the nervous system. These facts are extremely interesting, and it is worthy of note that they were derived from observations 'taken on the operating-table,'—a guarantee of their accuracy, and of the indomitable perseverance of their discoverer, who is certainly one of the most original workers in the progressive field of modern surgery.

"There is a variety of shock which has not been often dwelt upon by surgical writers, and which, I believe, my grandfather was one of the first to draw attention to. Owing to the deceitful character of the symptoms, he called it *insidious shock*, and described it somewhat as follows. In some very severe cases of injury a peculiar kind of shock is given to the nervous system where there is no corresponding disturbance manifested. A great joint has been torn open, a terrible compound fracture is present, or several of the large muscles and nerves have been lacerated, and yet the case looks altogether too well for one of such magnitude. The patient suffers no pain or inconvenience of any kind, the pulse and respiration remain normal, and by-standers apprehend no danger from the appearances. The only symptom that such a case affords of the termination that is threatening is the melancholy cast of countenance, which would seem to indicate an unhappy foreboding of the soul. As often as the surgeon approaches the bedside of the patient he will

look up with a stare of alarm and suspicion. This is the most dangerous kind of shock, and it can only be accounted for by the supposition that from the very suddenness and intensity of the impression the foundations of life are undermined, and no further elaboration of the great principle of innervation can be effected. I am inclined to think that the thermometer will be found to render valuable information in cases of insidious shock.

"There are circumstances which modify the phenomena of shock,—the locality of the injury which gives rise to it, the sex and age of the patient, and the state of the general health at the time of the accident; but more especially the idiosyncrasy of the individual.

"With regard to the locality, injuries to the head and spine are among the most important, as they necessarily implicate the great nerve-centres, upon which depend all the actions which constitute life. The skin is peculiarly endowed with sentient nerves which convey impressions immediately to the nerve-centres, and, therefore, in cases of severe burns and scalds, we have very dreadful forms of shock. Injuries to the thoracic viscera are accompanied by great shock, but those involving the abdominal organs are still more serious.

"Owing to the peculiarly emotional character of the female sex, which renders women more susceptible to mental impressions and to the varying physiological conditions which they are subject to during an important period of life, it has been supposed that they were prone to a severer form of shock than men suffering from similar injuries. Observation has induced the belief that this is not so, but rather that a woman bears injuries better than a man.

"When shock occurs in the aged, even if the body is free from disease, the general system is so enfeebled by the ravages of time, and the forces of life are so impaired, that, although the manifestations of an impression are less intense, they are apt to be persistent, approaching somewhat in character the condition I have described as insidious shock. In the young, on the contrary, where the vital forces are characterized by energy, and chiefly occupied with the processes of development and growth, an injurious impression is always strongly marked, but it is speedily over-

come by the recuperative tendency always stronger in childhood. This accounts for the remarkable manner in which children are capable of surviving accidents, such as falls from windows, etc., and the generally favorable results of all the graver operations which are often so surprising to the inexperienced.

"As shock is a metamorphosis of nerve-force, when an injury has been received by an adult whose general health is unimpaired the nature of the subsequent depression is correspondingly great. If, however, disease is present at the time of the infliction of the injury, the forces of life having been already drawn upon, the violence of the shock is generally diminished. The system has become accustomed, as it were, to the existing shock, and looks upon any new impression as if it was but an aggravation of the former. This is seen in cases of amputation of limbs for diseased joints, where not only is the shock less than when similar operations are performed for uncomplicated injuries, but the system seems to rouse out of a state of torpor and become invigorated through the relief from the perpetual distress it has undergone from the presence of the offending member. Any morbid organic affection existing at the time of the reception of shock naturally implies a disadvantageous condition, and very rarely, even with the help of surgical skill, can the system rally against the double invasion.

"Very often cases of a puzzling character are met with where the effects of shock as manifested through the symptoms can only be accounted for by idiosyncrasy. Persons have been known to faint at the sight of blood, or at the very thought of an operation; again, there are those who will unflinchingly bear the keenest suffering. Brave soldiers, who have never known fear on the field of battle, will tremble like a leaf when the surgeon approaches to examine a most trivial wound. It is curious to consider how far fortitude, courage, and pluck depend upon circumstances, among which habit is perhaps the most powerful and the least appreciated. A surgeon who may be a bold and skilful operator is not likely to become an enduring patient under the knife. In no instance is a little knowledge a more dangerous thing. Those who know most readily acknowledge how much more there is to be known.

"It must not be supposed that shock is always hurtful, for at times and under certain circumstances it exerts a beneficial effect by inducing an increase of excitement throughout the system, which is called reaction. In vigorous constitutions this generally happens immediately, as when reaction follows a shower-bath, or even after slight injuries, and the consequences are favorable, because the functions of the body, being in harmony, are able to resist the disturbance, and nature readily regains her equilibrium; but when reaction has been delayed by an interval of prostration, especially if there is any predisposition to disease, vascular engorgement, irritation, and finally inflammation are apt to result.

"As it is evident that reaction, when it occurs, is brought about by the forces of nature acting through their own impulses, the *treatment* should always be to assist, and at the same time to counterbalance, the contending influences in the system, for we may have as a consequence of the sudden increase of excitement the very stimulus of life, acting in a morbid degree, becoming the foundation of what is known as constitutional irritation.

"There is no class of affections which more severely test the judgment and skill of the surgeon than the management of the various forms of shock. In the slighter cases, arising from whatever cause, it is wisest to wait and watch, maintaining mental and bodily rest, and using only such means as nature seems to call for to help her in her efforts at repair. But in the severest forms of shock, when an immediately fatal result is threatening, the greatest promptitude of action is required to foster the lingering spark of life, which, as long as it lasts, gives hope; and, reasoning upon philosophical grounds, based upon the evidences I have endeavored to bring before you, an attempt should first be made to restore the temperature of the body by the application of external heat, for death occurs in such cases from cold. At the same time, stimulants should be given in moderate doses (the best form of which experience has proved to be brandy), in order to secure the generation of internal heat and to accelerate the heart's action.

"When reaction has become established, the treatment should be conducted on the general principle of good nursing.

"Chloroform, undoubtedly, has a prostrating influence upon the circulatory as well as the respiratory apparatus, and in this way may be itself capable of inducing shock, while the effects of ether seem to be principally upon the respiratory functions, and therefore this agent is generally regarded as the more safe; but anæsthesia, however produced, is certainly advantageous in doing away with the various mental influences which, as we have seen, are so often causes of depression. For the purpose of guarding against shock in cases requiring grave operations, most surgeons now resort to the administration of stimulants and the subcutaneous injection of morphia *before* the inhalation of an anæsthetic is begun, with the view of sustaining the vital energy and at the same time subduing the sensibilities."

Gentlemen, I can hardly lay too much stress upon the subject of shock. Rough treatment and want of consideration for the feelings of the patient have a great deal to do with the causation of shock. You should bear this in mind, and endeavor by kindness and gentleness to allay apprehension. Confidence in yourselves will often beget trust, but it will never hurt you to be sensitive of the sufferings of others. Although to the looker-on the surgeon does his work as a mere matter of business, yet we all know how hard it is to cut down on living tissue, and cannot help feeling for our patients. I do not favor rough and brutal surgery, but delicate manipulation. If you can gain the confidence of the patient and make him feel that you will not injure him unnecessarily, he will submit himself to your care more readily, and be less likely to suffer from shock.

As I have said, shock occurs immediately on the receipt of an injury, from an impression on the nervous system; it precedes any effect on the circulatory system, which constitutes inflammation.

Traumatic fever, on the contrary, is a condition of things which comes on in from eight to thirty-six hours after an operation or after the receipt of an injury. It is sometimes preceded by a rigor, restlessness, and nervous apprehension. The tongue is dry and coated, the pulse quick and irritable; and the usual symptoms of fever present themselves. This fever arises from the local cause. It is called traumatic fever from the nature of its origin,—traumatism. The fever is rarely characterized

by an excessively high temperature. The temperature may run up to 101° or 102° , but rarely reaches 105° . When we perform any capital operation we have always to anticipate the appearance of surgical fever. We must keep a chart of the temperature, pulse-rate, and respiration, and guide our action by that chart. If the temperature and pulse go up, we investigate further. Costiveness is usually found. We then administer a saline purge, or, if we desire to produce a decided effect on the alimentary canal, a calomel purge. We also give the liquor potassii citratis, sweet spirit of nitre in combination with a small amount of morphia to produce quiet, and to overcome nervousness, irritability, and pain. Such is the treatment of ordinary traumatic fever. This fever is always present in proportion to the severity of the injury and to the previous condition of the patient. It is more severe in a man who while in perfect health meets with an accident than it is in a man who after suffering long with disease has an operation performed. The disease has prepared the man for shock. The disease is, as it were, a continual shock. The operation removes the cause of shock. This is the kind of surgery that we meet with in this hospital. In the general hospitals, where they have more acute surgery, more decided traumatic fever is met with.

After an injury a patient may do well for a couple of weeks, when he will have what developed in the patients to whom I have referred,—secondary traumatic fever. If, after an operation of magnitude, the bedding is not kept clean, or the room is not properly ventilated and the air is not pure, or the room is kept too hot, you may expect to have secondary traumatic fever.

This fever, coming on in a week or ten days after an operation, is always dangerous. It indicates a condition of affairs which you can only learn to understand by experience. When the pulse suddenly goes up to 125 or 130 per minute, and the temperature is 101° or 102° , it indicates that there has been a collection of pent-up discharges either in the wound itself, or, by metastatic change, in some other part. The lungs, kidneys, and other organs must be carefully examined, and if any trouble is found it is to be treated in an appropriate manner. If the bowels are costive, you can do as I did in the case of excision of the wrist,—administer a pur-

gative. The pulse of this man was about 140 per minute, tremulous, and without consistency, and the temperature was very high. I gave him five grains of calomel, followed, in a short time, by a dose of castor oil. By this means I relieved the portal circulation, which is one of the most important things to do in these cases. The great veins are filled with the elements of broken-down tissue, which is carried almost directly to the heart. There was an immediate fall of the pulse-rate and temperature, and since then there has been a copious discharge from the wound, which was dressed with the sponge dressing. I still doubt whether I shall be able to save his hand; but his general condition is greatly improved.

There is one other form of traumatic fever,—that is, complicated traumatic fever. It is thought by some surgeons that this form is characterized by the entrance of pus into the blood, and hence we have the names pyæmia and septicæmia. Pyæmia is a bad name. It means blood with pus in it, but there is very little proof that pus is ever absorbed into the blood. Dr. Agnew in his recent writings, and many others who view this matter from a rational rather than a theoretical point of view, doubt the fact that pus ever gets into the blood, unless it be from the opening of an abscess directly into a vein or an artery, as may happen in aneurism or in cellulitis around a large vessel. Pyæmia, so called, is therefore a traumatic fever infecting the whole system and characterized by changes occurring in the deeper parts. Metastatic abscess appears in the lungs, liver, kidneys, and other internal organs. There may also be general toxic effects. This is always due to some septic matter taken from the wound.

When a limb is amputated, the wound must heal by inflammation. From the veins and arteries there exude the serum and corpuscles of the blood. Pus is formed by the white corpuscles of the blood coming in contact with the broken-down connective tissue. The septic influence comes from this mixture of blood-corpuscles, serum, and broken-down connective tissue-cells which have been torn by the knife during the operation.

The ways in which septic matter might find entrance into the system are through the veins, arteries, or lymphatics. It is doubtful if the veins or arteries take it

up. Pus cannot enter the vessels and be pus. It must undergo physical and chemical changes before being absorbed. It is not probable that the lymphatics take it up, for, as you know, the lymphatic glands stop injurious matters from getting into the circulation. Whatever may be the way in which the septic poison enters the system, I want to impress on you that this form of traumatic fever results from a septic influence in the wound itself, which finds entrance into the system by some channel and produces the effects that I have mentioned.

The treatment must be based on general principles. If there is much fever, antiphlogistic remedies are to be administered. After the acute symptoms have subsided, tonics and good nourishing food constitute the proper systemic treatment. Locally, such measures should be adopted as will lessen the chances of pus-formation, and the best dressing is that which affords thorough drainage from the wound, thus enabling nature to bring her healing forces effectually into play.

ORIGINAL COMMUNICATIONS.

STRETCHING THE OPTIC NERVE.

*Read before the Philadelphia County Medical Society,
June 13, 1883.*

BY M. LANDESBURG, M.D.,
Philadelphia.

MR. PRESIDENT AND GENTLEMEN,—You are undoubtedly still impressed with the sensation which was caused in the medical world by the first reports of Langenbach, Debove, Gillette, and others, showing the brilliant results which they had obtained by stretching the sciatic nerve in *tabes dorsalis*. In those times of high expectations and anticipations it seemed as if a new era of therapeutics were about to be inaugurated; it seemed as if this keen venture in surgery would open a new path which would lead us to certain victory in the struggle against one of the most fatal diseases of the human body. But certainly you also well remember how the enchanting dream of a moment had to vanish before the light of unbiassed investigations, and how extravagant hopes and expectations had to give way before plain and sober facts. The verdict seems to have been universal

that nerve-stretching in locomotor ataxia can only be regarded as a symptomatic remedy, that its results are but temporary, and that all hopes of lasting benefit are doomed to be disappointed.

In those by-gone times of enthusiasm, induced by theoretical arguments and conclusions, I began my investigations into the therapeutic value of stretching the optic nerve in atrophic degenerations of the latter. Certainly, at no time did my aspirations run as high as those of my brethren in general medicine; on the contrary, my expectations have been from the very outset very modest, and I have taken up the matter prompted rather by the spirit of scientific interest than by the assumption to revolutionize the doctrine of therapeutics in these forms of ocular affections. I have been perfectly conscious that under the peculiar circumstances and conditions under which we are allowed to try the surgical expedient of stretching the optic nerve we cannot expect to get any conclusive evidence of the intrinsic value of the new method of treatment, whether the latter be followed by a relative success or by a total failure. Nerve-stretching is the last attempt we resort to in extreme cases otherwise beyond remedial aid. If we fail in our last desperate struggle, we have no cause whatever to blame for this failure the method itself: the latter may be valuable enough without being able to restore destroyed nerve-fibres or to instil new life into a dying organ. And if, on the contrary, the operation has succeeded in improving vision to a certain amount, are we allowed to infer that the operation would be equally successful in the earlier stages of the affection, and are we justified in trying the experiment? Philosophical inductions from analogy are as little permitted in these instances as the trial of a new and precarious remedy, so long as there are other resources at our disposal, on the good effects of which more reliance can be placed.

Stretching the optic nerve I have performed twenty-one times in thirteen patients,—sixteen times after the following method. The lids are separated by the speculum; the incision of the conjunctiva is made on the insertion of the internal muscle, and the latter secured by a silk ligature. The tendon of the internal muscle is dissected, leaving a small stump on the sclera, in order to facilitate the re-

union, and Tenon's capsule and the underlying tissue are loosened from the sclera towards the optic nerve. The eyeball is turned outwards to the utmost by means of fixation-forceps, and a strabismus-hook is passed through the opening of the conjunctiva along the eyeball down to the optic nerve, which is caught from above and stretched "gently" three or four times. The eyeball is then brought into position, the internal rectus is reattached, and the conjunctival wound is closed by one or two sutures. Finally, a compressive bandage is applied for two to three days.

In five instances (Cases III., X., XI., XII., XIII.) I have performed the operation without tenotomy, by making a slit in the lower and outer part of the conjunctiva near the corneal margin and passing a strabismus-hook between the external and inferior muscle down to the optic nerve. This procedure is very simple, and more harmless than the other one, but it has the great disadvantage of allowing the optic nerve to slip very easily from the strabismus-hook, especially if the patient does not keep quiet.

The operation itself was in no instance followed by any bad consequences, either local or general, and the symptoms of reaction were such as we usually observe after a strabismus-operation.

The relative therapeutic value of stretching the optic nerve in the different forms of optic atrophy can be learned only from a study of the nature of the cases themselves in which the method has been employed. For this reason I beg leave to present to you, in as brief a manner as is compatible with the main purpose of the subject, the history of the following cases:

Case I. and II.—Mrs. B., 31 years old, had lost her eyesight during the course of erysipelas of the face and head, from which she had suffered during the month of June, 1881. My examination, made September 3, 1881, revealed the following condition:

External appearance of the eyes normal. The right eye has only a quantitative perception of light. The left eye sees movement of my hand close by. The flame of a candle in a dark room is discerned at one foot distance. The background of the eyes presents neuritic atrophy, with normal veins, but very thin arteries. General health is good.

Stretching the optic nerve in either eye, performed under narcosis, brought about no change in the right eye, although the patient was enabled to perceive daylight more brightly and more intensively than before the opera-

tion. In the left eye vision improved to discerning movement of my hand at one and a half feet distance, and distinguishing the shape of each of my fingers if kept close to the eye. The flame of a candle in a dark room was seen at three feet distance in all parts of the visual field.

This condition remained unchanged during a further observation of eight weeks.

The last examination, made June 13, 1882, showed:

Right Eye.—Absolute atrophy of the optic nerve. Quantitative perception of light doubtful.

Left Eye.—Discerns movements of my hand at one foot distance, and the flame of a candle in a dark room at two to two and a half feet distance. No change in the background of the eye.

Case III.—Seamstress, L., 22 years of age, had noticed the first symptoms of impairment of vision during an attack of erysipelas of the face and head, which had occurred in February, 1882. April 19 my examination revealed, —vision of the left eye about one-fifth of the normal. Right eye can only discern movement of my hand close by, and the flame of a candle in a dark room at one foot distance. Choked disk in the left eye, and neuritic atrophy of the optic nerve in the right eye. Treatment failed to improve in any way the condition in either eye.

Stretching the right optic nerve, performed May 13, was ineffective.

Case IV. and V.—Tailor, G., 45 years old, attributes the loss of his eyesight to a bad cold he had contracted in August, 1880. My first examination, made August 27, 1881, showed both pupils somewhat dilated and of sluggish reaction. The right eye sees movement of my hand in the temporal visual field only and close by; the left eye has only central quantitative perception of light. In either eye neuritic atrophy of the disk, with contracted veins and thread-like arteries.

Stretching of the optic nerve in either eye had no effect.

Case VI.—Shoemaker, T., 39 years old, had been treated by me successfully for optic neuritis which had developed consequent upon sudden suppression of habitual perspiration of his feet. The result remained stationary in the right eye; in the left eye relapse occurred after a year's interval, which rapidly destroyed vision. August 5, 1881, the eye counted fingers only close by, and discerned the flame of a candle in a dark room at three feet distance. Treatment was of no avail.

Stretching the optic nerve, performed September 2, increased vision to counting fingers at three feet distance, and to discerning the flame of a candle in a dark room at seven to eight feet distance. No change in the condition during a further observation of five months.

Case VII. and VIII.—Peddler, W., 37 years

old, had noticed the first symptoms of failing of his eyesight in May, 1882, while recovering from typhoid fever. Treatment had no effect to check the progress of the morbid process, which destroyed vision within three months.

Examination, made November 21, showed pupils slightly dilated and of sluggish reaction. Optic disks whitish-blue, with normal veins and slightly-contracted arteries. Only quantitative perception of light in either eye. The flame of a candle in a dark room is seen at six inches distance, but there is no power of localization. No spinal or cerebral complications. Urine normal.

Stretching the optic nerve, performed November 23 and 24, effected a gradual improvement in the sensation of light, with restoration of the power of localization. November 27, patient discerned movement of my hand at one foot to two feet distance, and the flame of a candle in a dark room at six feet distance. Pupils reacted more freely. December 1, improvement has reached its acme. Movement of my hand is seen at three feet, the flame of a candle in a dark room at eight feet distance. Glittering objects kept close to the eye are easily discerned. This result remains stationary until the middle of January, 1883, to vanish gradually. In the middle of March we have the same condition as before the operation.

Case IX.—Laborer, E., 47 years old, has been suffering for the last two years from gradual loss of his eyesight, for which no assignable cause can be given. General constitution is good. With the right eye he counts fingers near by; vision of the left eye is reduced to $\frac{3}{8}$. There is genuine atrophy of either optic nerve.

Treatment has the effect of increasing vision of the left eye to $\frac{3}{8}$. The condition of the right eye remains unchanged. Stretching the right optic nerve, made October, 1881, has no result.

Case X.—Peddler, C., 47 years old, somewhat decrepit, attributes the gradual loss of his eyesight to a bad cold he had contracted several years ago. His general constitution is good. With the right eye he counts fingers at one foot distance. Pupil is somewhat sluggish. Visual field is concentrically limited. Vision of his left eye is $\frac{1}{16}$, with great limitation in the upper half of the visual field. The optic disk presents the picture of genuine atrophy.

Treatment improves vision of the left eye to $\frac{1}{8}$, but has no effect upon the right eye.

Stretching the optic nerve of the right eye, performed February 5, 1882, improves vision to counting fingers at eleven feet distance. The result remains stationary.

Case XI. and XII.—Laborer, P., 38 years old, of robust constitution, presented himself, March 20, 1882, with the complaint of rapid loss of his vision during the past six weeks, for which no assignable cause could be given.

Both pupils were slightly dilated and very sluggish. Vision of the right eye was $\frac{1}{16}$; in the left eye there was hardly quantitative perception of light. Background of both eyes showed genuine atrophy of the optic nerve.

In spite of energetic treatment, vision of the right eye decreased daily. March 24, vision was reduced to $\frac{1}{16}$. March 28, the eye counted fingers only at one and a half feet distance. April 1, there was only quantitative perception of light. Background of the eyes remained unchanged.

Stretching the optic nerve in either eye was performed April 5. The operation had no effect upon the left eye, but improved vision in the right eye to counting fingers at six feet. This favorable result, however, was only temporary; very soon the morbid process reassumed its progressive course, to stop only when vision had decreased to counting fingers at one to one and a half feet distance.

Case XIII.—Mechanic, W., 53 years old, married for twenty-five years, and father of healthy children; confesses to having had syphilis about thirty years ago. His general constitution is good. His eyesight has been failing for the last three years. There are no spinal or cerebral complications.

With his right eye he counts fingers at ten feet distance. Pupil is somewhat dilated and sluggish. Field of vision is concentrically limited. With his left eye he sees only movement of my hand close by.

The optic disk in either eye is whitish and flat. Arteries are very thin; veins are slightly contracted.

Treatment improves vision of the right eye to $\frac{1}{8}$, but has no effect upon the left eye.

Stretching the left optic nerve was of no avail.

Case XIV. and XV.—Smith, H., 45 years old, has been suffering from tabes dorsalis for the past two years. There is decided ataxia and anæsthesia in the lower extremities, associated with belt-like pains around the body and absent patellar-tendon reflex. The gait is jerking. Closure of the eyes increases the symptoms of incoördination. Mental capacities are not impaired. Sexual appetite is almost extinct.

Disturbance of vision had been first noticed about a year ago. The right eye counts fingers at three feet and the left eye at one foot distance. Pupils are small, do not contract under bright light, but react upon efforts of accommodation and associated movements of the eyeball. The optic disks are white; veins are normal; arteries very thin.

Stretching the optic nerve in either eye, performed December 5, 1881, had the effect of increasing gradually vision of the right eye to counting fingers at eleven feet, and of the left eye to counting fingers at nine feet distance.

The result remains stationary for seven

months, notwithstanding the constitutional disease follows its progressive course, leading to death by bed-sores.

Case XVI. and XVII.—Dyer, H., 47 years old, has been suffering for several years with rheumatic and lancinating pains in his lower extremities, and with numbness in the soles of his feet. Closure of his eyes reveals symptoms of muscular incoördination. Knee-phenomenon is absent. Tactile sensibility and muscular power are not abated. Sexual appetite has been very moderate in the last six months. General health is good. Patient had been infected with syphilis when twenty-one years old.

With the right eye he can hardly discern quantitative perception of light. Pupil is slightly dilated and insensitive. With the left eye he counts fingers at three feet distance. Pupil is contracted; reflex action is lost, associated action is very feeble.

Both optic disks are white on the temporal half and slightly reddish on the nasal one. Veins are normal; arteries are very thin.

Treatment with large doses of iodide of potassium greatly improves the general system, but has no effect whatever upon the condition proper of the eyes.

Stretching the right optic nerve remains negative.

Stretching the left optic nerve improves at first vision to counting fingers at five feet distance, which, however, gradually subsides, in the course of four months, to counting fingers at three and a half to four feet distance.

Case XVIII. and XIX.—Mechanic, D., 51 years old, had noticed the first symptoms of impairment of his vision in the spring of 1881, about three months previous to the appearance of the first evidences of tabes dorsalis. Treatment had no effect in checking the progress of the morbid process.

Examination, made March 3, 1882, showed: Complexion sallow and ashy. Muscles of the upper and lower extremities flabby. Marked anæsthesia in the lower limbs. Loss of consciousness of the exact position in the left limb; marked abatement of consciousness of position in the right one. Notable ataxia of the upper extremities, which show circumscribed anæsthetic patches. Knee-phenomenon absent. Sexual appetite extinct. Bowels constive. Functions of the bladder normal. Mental capacities not impaired.

Left Eye.—Pupil slightly dilated, insensitive to light, and only slightly reacting upon associated action. Counts fingers at one foot distance peripherically. Optic disk white, excavated. Veins normal; arteries contracted.

Right Eye.—Pupil irregular, slightly contracted; reflex action very feeble, associated action fair. $V = \frac{1}{20}$. Field of vision not limited. Central scotoma. Optic disk somewhat flat, whitish, and surrounded by an atrophic ring.

Stretching the left optic nerve, performed March 6, gradually improves vision to counting fingers at five feet distance. The result remains stationary until the last days of June.

Vision of the right eye begins to fail towards the middle of May, and rapidly decreases, unchecked by therapeutics. June 28, the right eye counts fingers only close by. For the first time since the operation the examination reveals a decrease of vision in the left eye, which counts fingers only at three feet distance.

Stretching the right optic nerve has no effect. The course of the affection is fatal in both eyes. August 3, there is hardly any perception of light in either eye. Both optic disks are chalky-white, with atrophic excavation. Veins very thin; arteries thread-like.

Case XX. and XXI.—Lithographer, C., 41 years old, had enjoyed good vision until the first days of October, 1881, when the sight of his left eye began to fail so rapidly as to be reduced to quantitative perception of light at the end of the sixth week of the affection. The right eye remained healthy until the middle of May, 1882, when its sight began to decrease, at first very rapidly, later on in slow progress and with intermissions. All possible remedies had been used without any avail.

Patient, a robust, stout man, has been afflicted since 1876 with gastric and rheumatic pains. His gait is slightly staggering; he walks with a stride, dragging along his left leg, and oscillates very considerably while standing with closed eyes. Patellar-tendon reflex is absent. There is numbness in the sole of his left foot, and marked abatement of tactile sensibility along the dorsal surface of the left leg up to the buttocks. The tactile sensibility in the right limb has not abated in the proper sense, but there is a slight retardation in the transmission of sensitive impressions to the brain. Muscular power is normal in either limb. There is, besides, a belt-like pain around the body, and a sensation of numbness and cold in the thumb and index finger of the left hand, with a sensation of formication in the latter. Sexual passion has moderated since 1880. All other functions are normal.

Left Eye.—Amaurosis.

Right Eye.—Counts fingers at four feet distance. Pupil contracted, very little sensitive to light, but reacts promptly under efforts of accommodation. Optic disk is white in its temporal half, and pale in the nasal one. Vessels are not charged.

Stretching the right optic nerve, performed August 23, 1882, improves vision to counting fingers at fifteen feet distance. Reflex action of the pupil is increased.

This result remains steady until November 17, when vision begins to fail again, gradually subsiding to counting fingers at one foot distance. At this stage I renewed, December 15, stretching of the optic nerve, which raised

vision to counting fingers at three feet distance. But improvement lasted only until December 27. Amaurosis set in within a few days. Locomotor ataxia progressed rapidly.

CONDITION OF THE EYES IN STRABISMUS DUE TO OPTICAL DEFECTS.

*Read before the Philadelphia County Medical Society,
June 13, 1883.*

BY WILLIAM S. LITTLE, M.D.,

Senior Assistant Eye Clinic of Jefferson Medical College Hospital.

OPTICAL defects, since the time that Donders asserted that "strabismus convergens almost always depends upon hypermetropia, strabismus divergens is usually the result of myopia," have been considered the leading cause in the deviations of the optical axes of the eyes that were not associated with paralysis of the external ocular muscles.

The causes assigned as productive of these two abnormal positions of the eyeballs, before Donders made his assertion of the influence of optical defects as a cause, became almost forgotten, and till the past few years have hardly been remarked upon. Hippocrates claimed heredity and association with epilepsy; Galen, a cramp of the muscles; St. Yves, due to contraction of the muscle; Buffon observed that myopia was present in some cases, and a difference in the visual power of each eye existed; Dieffenbach asserted that the difference in visual power of each eye was never the cause of squint.

Methods of treatment, prior to the correction of optical defects with a subsequent division of the tendon of the muscle at fault, differed. Paulus used a mask; Alkindus recommended closing one eye alternately.

Early in the eighteenth century, Taylor divided the tendon of the superior oblique; Ingalls, of Boston, in 1812, divided the internal rectus; Gensoul, in Lyons, in 1836, also Dieffenbach, in 1836, did the same operation. Cavarra, in 1836, and Eisenmann, in 1842, used electricity.

Strohmeyer, in 1838, brought the operation of division of the tendons of the muscles most prominently before the profession.

The influence that optical defects have as a cause, and the necessity of their correction, either with or without operative pro-

cedures, followed the older plans of treatment upon the publication of "The Anomalies of the Refraction and Accommodation of the Eye," by Donders, about 1860.

For a more full account of the history of strabismus, see "Geschichte der Ophthalmologie," by Hirsch, in "Handbuch der Gesammten Augenheilkunde," vii. 2, Graefe and Saemisch.

Till statistics were reported by Schweigger, optical defects had almost excluded any orthopaedic influence. There seems to be now a tendency to give more credit to the influence of variation in the shape of the orbit; origin, length, and attachment of muscles to the eyeball, with a greater or less power in the action of these muscles; the internal muscle of the eye, the ciliary muscle, can vary also. Any of the above-mentioned variations can produce squint in eyes having no optical defects, as well as when optical defects exist; and here we must not forget that an undersized eye is hypermetropic, and an oversized eye is a myopic one; that the muscles might vary as well as the eyeball seems not unlikely.

Schweigger's statistics show that

Convergent strabismus existed in	21%	with E.
"	"	12% " M.
"	"	65% " H.
Divergent	"	35% " E.
"	"	04% " H.
"	"	59% " M.

Optical defects are present in a large majority of cases of strabismus; but it is more apt to be the influence of optical defects, in eyes whose conditions are not normal, irrespective of the optical defect; from anomalies in the perceptive centres of sight, or in the retina; from opacities in the media that should be transparent, and in eyes whose ciliary muscle is not able to overcome the optical defects, so as to give clear or sufficiently distinct images for the retina to act upon, and whose external muscles cannot keep up the normal act of convergence for both eyes, associated with the power of accommodation.

Differences in the visual power of each eye from differences in optical defects, and even from opacities in the media or from want of pericripiency in the retina, have been considered the principal factors in producing squint. Some time since, I went over my cases having a difference in optical value between each eye, to learn what influence this alone had in producing

squint, and to obtain the percentage for strabismus.

I found that in twenty per cent. of cases differing in refraction of each eye, strabismus occurred; that in eighty per cent. of cases differences occurred without strabismus.

The amount of difference ranged as follows:

Strabismus.	No Strabismus.
(Converging.)	
H. 3.5 D—0.50 D	2.5 D—0.25 D
(11)	(19)
M. (Diverging.)	
9. D—4. D	2.5 D—0.25 D
(3)	(24)
Ah (Converging.)	
2.5 D—1. D	5. D—0.25 D
(3)	(11)
Am. 1.5 D	3. D—0.25 D
(3)	(8)
Mixed As. (o)	(9)

From corneal opacities with optical defects,

Strabismus.	No Strabismus.
4 cases.	6 cases.

A divergent strabismus existed in one case, with congenital displacement of each lens.

From vitreous opacities, no squints. In one case of congenital coloboma of choroid, near macula in each eye, convergent strabismus, each eye hypermetropic.

From disease in choroid, retina, or nerve, no strabismus was observed.

The eighty per cent. of cases with difference in refraction between the two eyes without strabismus is to be accounted for by the fact that full acuity of vision was obtained, either with or without the correction of the optical defect. The influence of the ciliary muscle and power of convergence of the external muscles was sufficient to maintain binocular single vision.

In the performance of this, many suffered from headache, irritated states of the eye, and an inability for prolonged work; slight defects in some cases causing more annoyance than marked ones.

The twenty per cent. of cases with differences in refraction and having strabismus; the ciliary muscle, without correction of the optical defect, could not maintain full acuity of vision, and the converging power was not equal to the task of maintaining binocular single vision; or, if equal to it, the amblyopic condition of the retina prevented, or the external ocular muscles were at fault.

It was found that where vision in the worse eye could be made equal to $\frac{20}{LXX}$, the better eye being equal to $\frac{20}{XX}$; in several cases without division of the internal rectus in convergent strabismus a full restoration of the optical axes occurred, or, where the operation was performed, a single operation gave full effect. Where vision was less than $\frac{20}{LXX}$ in the worse eye, the other having full vision or nearly so, an operation was required, sometimes not only on the worse eye, but also on the other, and the success not so marked.

In reference to amblyopia, it may be said that where it is congenital, though the correction is given for the defect recognized by the ophthalmoscope, no improvement in vision occurs; and yet I believe the wearing of the glass is a source of relief to the ciliary and external ocular muscles in their associated action with the better eye.

In case of amblyopia from non-use of the retina on account of an optical defect, vision does improve, and, if the correction is good, even full vision may be obtained. I reported one such case in the *Philadelphia Medical Times*, August 3, 1878, in a case of what was originally a convergent strabismus with a high hypermetropic astigmatism and operated upon without a correction. A divergent strabismus ensued; the correction was given, and $\frac{20}{XX}$ obtained; I divided the external rectus. I reported a similar case where Prof. William Thomson advanced the internal rectus. Two operations were required, and vision with the correcting glass + 2. D \bigcirc + 3. D cyl. ax. $40^\circ = \frac{20}{C}$ (see *Philadelphia Medical Times*, September 13, 1879). Another case, reported in the *American Journal of the Medical Sciences*, 1880, was a divergent strabismus with myopia, the better eye nearly lost by an accident; the other eye with the correction equalled $\frac{20}{XXX}$ from vision of $\frac{2}{C}$ after years of disuse: the external rectus was divided.

It has been observed in my cases that a simple astigmatism, either hypermetropic or myopic, is associated with strabismus.

The present occasion hardly calls for a too long consideration of the subject, and I would refer you to what you may find in the "Hand-Book of Ophthalmology," by Schweigger, and in "Diseases of the Eye,"

by Prof. Henry D. Noyes, who agrees with Schweigger in many particulars.

I believe a more marked consideration of the orthopædic condition, along with a full appreciation of the importance of optical defects, as a cause of strabismus, is now not out of place. A certain number of cases, despite the care given to the correction of optical defects, and one, two, or even three operations, do not yield success; and in these cases more attention must be given to the orthopædic side of the question.

The variation possible in length of muscles attached to the eyeball and of the ciliary muscle inside the eyeball, with the variable power they may exercise upon an eyeball of proper size, and much more so upon eyes that are too small or too large, makes the orthopædic symptoms necessary to be understood; for while the correction of the optical defects neutralizes the variation in the size of the eyeball, it does not overcome the muscular defects, if they exist, a fixed accommodation corresponding to a given convergence. The condition in strabismus, in some cases at least, is analogous to deformities of the foot or hand.

As to the treatment of strabismus, it is not the purpose of this paper to consider it; I have found, however, in some cases the use of electricity of value, in divergent squint especially. There is one point of importance, and that is the absence of diplopia, in cases of strabismus that are non-paralytic. I do not know of any cases where, at the time of observation, or after treatment, it has been complained of.

In one case recently treated, where there was a marked difference between the eyes, and no strabismus, the correction being given, diplopia occurred, requiring a division of the external rectus of the right eye. This eye had been considered amblyopic, but full vision was obtained, and the diplopia became very annoying.

The marked difference in position of the eyes with strabismus prevents the annoyance of diplopia, as in the worse eye the peripheral image on the retina does not give the centres of sight any too marked impression, or in eyes congenitally amblyopic the image is so clouded as not to be recognized. In amblyopia from non-use on account of an optical defect, the same holds good.

215 SOUTH SEVENTEENTH STREET.

SOME REMARKS UPON THE DIAGNOSIS AND TREATMENT OF FRACTURE OF THE NECK OF THE FEMUR IN ELDERLY SUBJECTS.

Read before the Philadelphia County Medical Society,
June 20, 1883,

BY OSCAR H. ALLIS, M.D.,

Surgeon to the Presbyterian Hospital, to the Jefferson Medical College Hospital, and Lecturer on Orthopædic Surgery and Joint-Diseases in the Post-Graduate Course in the Jefferson Medical College.

MY subject would be robbed of much of its interest and real value were the two closing words omitted, and therefore, to render myself intelligible, I must define what I mean by "elderly subjects." It is obviously impossible from a practical stand-point to assign to age an arbitrary period, since some persons are more feeble and decrepit at fifty than others are at seventy. My definition may work itself out as I advance, and, merely to set the matter at rest for the moment, I will decide that all persons at the age of seventy may be fairly styled elderly.

Let us, then, examine the points of diagnosis in this particular injury; and first let me say that we are to bear in mind that we are called to treat a person *in advanced life*. There has been an injury which has rendered its victim powerless; and accompanying this injury there has been shock,—not infrequently so great as to prove speedily fatal, often such as to place life in extreme peril and from which the patient may rally slowly and imperfectly.

Many and conflicting problems arise at this point, some of which concern the surgeon and some the patient. The surgeon asks, Shall I be satisfied with a diagnosis that can be arrived at without increasing the shock to the patient? or shall I resort to anæsthetics? or, this being denied, shall I through manipulations produce the evidence of crepitus? or shall the age of the patient be regarded? shall everything that would increase shock be avoided?

The strong points in such a case are—

1. Age. At the age of seventy an injury that renders the patient suddenly helpless cannot be a dislocation. It must be a fracture or a bruise. At this time of life the bones are brittle and snap at slight provocations.

2. Shortening and eversion. These terms are but another name for preter-

natural mobility. The limb is shortened because it is severed from the trunk and drawn up by the muscles about it. It is everted simply by its weight. The eversion of the foot is a simple question of physics.

3. Diminished tension. By comparing the limbs, the integument and muscles of the injured thigh will be perceptibly softer than its fellow, and if an effort is made to define the great trochanter it will be readily done on the injured side, but not so on the sound side.

This symptom—the relaxed condition of the fascia lata—is of great importance. One of its principal functions is to enable man to stand at rest. From the crest of the ilium to the outer surface of the external tuberosity of the tibia a band of fascia lata passes, the thickest, longest, strongest band of fascia in the body. When the thigh is broken in any part, this fascia is relaxed and becomes a valuable auxiliary to other symptoms in this injury. The injured limb lies its entire length upon the bed without producing any arching of the spine.

Upon these points, age seventy or over, —at which time of life there are not, probably, five recorded cases of dislocation of the head of the femur in all medical literature,—sudden loss of power in locomotion due to an injury, with pain on the slightest motion, shortening and eversion, with diminished tension and supineness, I would not feel justified in pushing my inquiries further: 1st, because the only remaining symptom, viz., crepitus, may not be elicited, even on the most unrestricted examination; 2d, because the absence or inability to elicit crepitus is no proof that the injury is not fracture; 3d, because, as there is not a single symptom of dislocation present, one is not justified in prejudicing the case by manipulation, either with or without ether.

The administration of ether or chloroform at this advanced age is always attended with risk, and to be avoided if possible; while the flexion and extension, the circumduction and rotation, necessary to produce crepitus, all of which must be repeated by every one professionally connected with the case, is an ordeal even for the robust, and not to be unnecessarily superadded to shock occurring in old age.

The second point is the *treatment*; and here problems of no little moment confront us. Our patient is seventy; and will he bear the prolonged restraint that is

usually deemed necessary to insure good repair? Can he bear a confinement of six or eight weeks? He could not bear it in typhoid fever or paralysis, and he will not bear it in fracture. Often the sacral integument is macerated and sloughing in a week's time, and many a case dies of *bed-sore* that without this distressing complication would recover.

In my treatment of this class of cases I regard but two stages: first, that of shock, and, second, convalescence. From first to last I make the *PATIENT* my first care and regard the fracture as of secondary importance. During shock I keep him recumbent, shifting his position as it affords him relief, and placing pillows or some extempore contrivance about the limb for its support. If care is taken to shift the patient from side to side in bed, to change bedding and clothing whenever it is wet, no matter how often, if the patient is placed on his right side, his back, and left side, there will be no danger of bed-sores until he has sufficiently recovered from the shock to leave his bed; and this may be in a week, or less, according to the strength and condition of the patient. I am in the habit of ordering a movable platform upon which I can fix securely an easy rocking-chair. This I roll to the bedside, and with very little difficulty my patient is helped to the chair and rolled to a pleasant part of the room while his bed is being made. The first attempts to get him up are apparently attended with pain; but this is in a great measure due to fear and uncertainty of movements. After a few trials the patient will so far help himself as to require little additional assistance. At first he sits up an hour or more; but soon he will spend the entire day in his chair.

If the person is living in his own house, and especially if the house is small and attendance upon him in an upper bedroom would be irksome to other members of the family, I immediately appropriate the parlor or sitting-room to his use; and if permission is granted, I put half a dozen hooks into the ceiling over the bed, to which I attach ropes at such intervals as will help the patient to change his position in bed, or to leave his bed for the chair. So far as treatment of the fracture is concerned, I reassert that I almost entirely ignore it, knowing, as I do, the hazard one runs in confining an aged patient for any considerable period.

In the foregoing remarks I have kept closely to my text, my rule of practice being that no procedure can be justified in establishing the diagnosis that will add to the shock of the patient, and no treatment employed that may be productive of mischief. But, it will be urged by some, what excuse have you to offer for thus wantonly abandoning your patient, leaving a fracture of the neck wholly to nature for repair?

To this I say, I never abandon my *patient*, but those do who insist upon treating the fracture and magnify its importance. These, I say, do abandon their patient, making his very existence secondary to the accident. But experience shows that the seeming neglect of the fracture is only apparent, not real. In a case of a man over eighty, who fractured the femoral neck by a fall of a few steps, I had no alternative but to shift him from bed to bed and make him comfortable. The accident occurred in midsummer, and for four months the man's life was in jeopardy. Health finally returned, and with it a useful limb. He could walk without a cane, though with a decided halt. Last winter a man in his eightieth year fell on the ice and was brought home helpless. The symptoms were well marked. I got him out of bed on the third day, and from first to last gave *him* my care and left the fracture to nature. He can now walk without a cane, merely to show how well he has succeeded, though he prefers a cane or a crutch.

Still, the question may arise, would not these have done better with special treatment? Are they not exceptional cases? To this I say, no. I do not believe that the *results* in treatment of fracture of the neck are brought about by splints, apparatuses, inclined chairs, or fancy beds. I believe the results are determined by the character of the fracture the instant it occurs. I make this statement after examining morbid specimens of recent and remote injuries, a study of which must convince any unprejudiced mind that in some cases nature has no resources that may avail the patient.

For those who say that Smith's anterior splint, Daniel's fracture-bed, and the reclining chair accomplish the double purpose of immobilization and comfort, I have no remarks: I am reminded of the litigious Irishman, whose defence was that "he never got the goods, that they were

damaged, and, besides, he paid for them at the time."

Against the practice that I have advocated, it will be stated that daily shiftings in bed, and from bed to chair, will interfere with union, since by such a course the fragments will be disturbed and efforts at repair frustrated. Even were this conclusion a just one, I would say, better imperfect repair than a headstone. But it is an assertion, and nothing else, to say that carefully getting the patient up daily will produce a separation of fragments.

During the past winter, a female about fifty years of age, whose fracture was the result of a fall on the ice, came under my care about ten days after the injury. At this early stage the buttocks were already covered with bed-sores; and this, with the fact that she had incontinence both of bladder and rectum, made it necessary to shift her daily from one bed to another. This incontinence persisted, and no treatment for the fracture was instituted; and yet at the autopsy, about three months after the accident, there was not the slightest evidence that her ride home in an ambulance from the place where she received the injury, her being carried to the third story up narrow and winding stairs, her removal from this to the hospital, her daily shiftings from one bed to another, her final removal to her home and again being carried up stairs, ever changed the relations of the non-impacted fragments from the moment the fracture took place.

There is, however, a serious side to this subject. With every honest, conscientious endeavor to do that which is best for our patient, what defence will one have in the court-room when the case turns out badly? How will it sound in the jury's ears when the plaintiff's counsel says, "Gentlemen, I do not question the general skill and good intentions of the defendant, but I am forced to press upon you my convictions that he has not from first to last comprehended the nature or gravity of this case. He made no attempt at the outset to elicit crepitus, to determine whether the fracture was intra- or extra-capsular. He gave it no time to knit, but took him from his bed before a week had gone by. He claims that he was afraid of bed-sores. Why didn't he apply plasters? why didn't he order air-cushions or a water-bed? Ah, gentlemen of the jury, by a fatal misconception on the part of this surgeon,

this poor man must end his days a helpless, hopeless cripple."

Unquestionably, the odds against the surgeon would be great in such a case, even though he could show that the treatment adopted were as old as Sir Astley Cooper. Here he has a lawyer struggling for a contingent fee, a jury full of sympathy for the patient, and to whom the pathology of fracture of the femoral neck is as Greek, living testimony whose faith in treatment is absolute, and authors whose latest editions eulogize methods never popular and long since abandoned.

In conclusion, I ask, what has been, is, and must ever be the outcome of all this? Will the surgeon risk his little all for the good of his patients, or must he steer his course by that true but selfish standard, "*self-preservation is the first law of nature*"?

Alas when age and decrepitude are not valid reasons for the exercise of the judgment!

PHILADELPHIA, 1604 SPRUCE STREET.

GENUINE ATROPHY OF THE OPTIC NERVE, AND TABES DORSALIS, DEPENDENT UPON SYPHILIS.

Read before the Philadelphia County Medical Society,
June 20, 1883.

BY M. LANDESBURG, M.D.

THE relation of tabes dorsalis to syphilis is still a matter of controversy among the highest medical authorities, upon whose vast experiences we have mainly to rely for information on this difficult subject. Erb, Fournier, Gowers, Dowse, and Banks are the avowed partisans of the etiological connection between tabes dorsalis and syphilis; while Althaus, Lance-reaux, and Gull maintain that tabes dorsalis and syphilis are coincident only, but not correlated. Thomas Buzzard, who had formerly included progressive locomotor ataxia among the nervous affections belonging to the tertiary stage of syphilis, has now shifted this pronounced position. He still acknowledges the fact to be incontestable that there is a remarkable frequency of association between the two affections, but thinks that the time has not yet come to draw safe inferences as to the precise nature of the relation.

This divergency of opinion teaches us that the question is still an open one, and that the record of well-observed facts which will contribute to the solution of

the problem must be of interest to the medical profession.

I hope that the history of the following case may deserve your kind attention.

Merchant, S., 39 years old, applied to me, for the first time, May 3, 1877, on account of catarrhal affection and slight asthenopic troubles of his eyes. There was manifest hyperopia of $\frac{1}{2}$ and vision $\frac{1}{3}$ in either eye. Appropriate treatment and the use of suitable glasses effected in a short time a perfect cure.

Patient presented himself again October 28, 1878, this time with a slight paresis of the left external muscle. The limitation in motion was hardly perceptible, and the diplopia could fully be corrected by prism 10° , base outward. Vision in each eye was $\frac{1}{3}$, with manifest hyperopia of $\frac{1}{2}$. Field of vision and background of the eyes were normal. Left pupil showed normal condition. The right pupil was contracted, reacted very feebly under bright light, but promptly under efforts of accommodation and associated movements of the eyeballs. Repeated instillations of atropia dilated the pupil only slowly and only in the medium.

Patient, a robust and stout man, attributes his present eye-trouble to a bad cold he had contracted a few weeks before. His stomach has since been out of order, and he has suffered from flying rheumatic pains in different parts of his body.

The tongue was slightly coated, and there was some pain over the stomach-pit. Functions of the bowels and the bladder were normal, and sexual appetite was in full vigor. Closure of the eyes did not reveal any symptoms of muscular incoordination. Syphilitic affection was emphatically denied.

A few applications of the galvanic battery, in conjunction with the use of hot vapor baths, effected a rapid cure. There was no trace left of the paresis, and the general condition also seemed to have been greatly benefited by the treatment.

I lost sight of the patient for three years and a half, when he applied to me again, May 7, 1882, so changed in look and appearance that I could scarcely recognize him at first. His sad tale was as follows:

His health was good in the winter of 1878-79. In May, 1879, he began suffering from his throat, with difficulty in swallowing, so that for a time only liquids could be consumed. The cervical glands were also highly swollen. This complaint passed off under treatment, and he enjoyed three months of rest, when gastric disorders set in, which, rapidly increasing, brought down the weight of his body from one hundred and ninety-five to one hundred and thirty-five pounds. Dyspepsia was extreme, and constipation could only be overcome by the most heroic drastics. Attacks of gastric spasms were regularly repeated every evening, followed

by chills and consequent profuse perspiration. Quinine, bismuth, and nitrate of silver were alternately used, without producing any material change in the condition of the patient, who began to improve spontaneously in June, 1880, regaining his former health and strength in a very short time. His weight increased within six weeks to one hundred and seventy pounds, and reached two hundred and six pounds in the middle of October. In the first days of November inflammation of his right knee-joint developed, with moderate swelling of the parts, but with excessive pains, which were worse at night. Shortly after the use of iodide of potassium had restored health, the same affection set in on the ankle, to pass away spontaneously within two weeks. He now remained perfectly well until the spring of 1881, when the old gastric trouble reappeared, associated with rheumatic pains in the back and the lower extremities. The sexual appetite abated, and in the middle of August patient first noticed a sensation of cold and formication in the lower extremities, and of numbness and tingling in the soles of his feet. The morbid symptoms were most marked in the left limb, which felt heavy and was the frequent seat of fulgurating pains. Besides, there was a constant sensation like that produced by a faradic current. His physician declared the case to be one of *tabes dorsalis*, which diagnosis was corroborated by other physicians. Electricity, ergot, bromide of potassium, warm and cold baths, were tried without any effect. In December patient noticed the first symptoms of impairment of vision in his right eye. The latter lost the power to read near by the usual point, while it could readily distinguish distant objects as well as before. This disturbance, however, passed off without any medical aid, and the eyes remained healthy until February, 1882, when vision began to fail in both eyes. He resorted to glasses, which he had to change six times within three months. At last he was sent by the optician to an oculist, who treated him with subcutaneous injections of strychnia and with artificial leeches applied to the temples. Vision was not improved by the former, and was greatly impaired by the latter, procedure.

General examination showed complexion sallow, eyeballs sunken, muscles flabby, the whole body emaciated, depressed white circular cicatrices, surrounded by a ring of brown pigment, on the left tibia and ulna; smooth white scar near the *frænum preputii*; tendinous, longitudinal cicatrices on the back of the pharynx and on the soft palate; tongue slightly coated, breath foul, lymphatic glands not enlarged. Pressure along the spine does not produce any painful sensation. Cutaneous sensibility of the head, trunk, and the upper extremities not abated. Pinching with a pin on any point is instantly felt and very promptly localized. Motor power of

the arms absolutely normal. The grip too strong to be borne. Writing is correct. The lower extremities can feel and localize fairly, but there is already a slight diminution in the tactile sensibility, with retardation of the sensation of pain, which phenomenon is most marked in the soles of the feet. Muscular sensation and motor power are not affected. Plantar reflex feeble; patellar-tendon reflex totally abolished. Gait jerking, but walking is done without the help of a cane. Erect position is maintained for only a short time, with the legs kept apart; after a little while the body begins to totter and to swing from side to side. Standing and walking with closed eyes are highly uncertain; the body is swayed to and fro and has a tendency to fall to the left side. The same insecurity and tendency to fall to the left are experienced when the patient is ordered to turn around rapidly.

The subjective complaints are heaviness and weakness of the limbs, with the sensation of cold in the latter and of numbness in the soles of the feet; sensation of formication and of pricking in the index finger and thumb of each hand; lancinating pains in the lower extremities, with constant dull pain in the back; feeling of intense constriction around the body. Standing and walking in the dark are very difficult, and stumbling is very frequent. On rising in the morning, patient experiences great difficulty in using his limbs and arms, and he only gradually gains the power over them. Bowels are costive; sexual appetite is extinct; there are slight noises and murmurs in the ears. Mental capacities are not impaired; sleep and appetite are good; digestion is fair; urine normal; speech is distinct; no difficulty whatever in swallowing; weight, one hundred and forty-five pounds.

Examination of the eyes and ears showed right pupil *extremely* contracted; it does not react at all under bright light, and reacts scarcely perceptibly under efforts of accommodation and upon movements of the eyeballs. Left pupil contracted and motionless under bright light; it reacts very slowly under efforts of accommodation and upon movements of the eyeballs. Intraocular pressure and sensation of colors normal.

Vision of the right eye $\frac{1}{8}$, of the left eye $\frac{1}{16}$. In the right eye the visual field is greatly narrowed in its upper half; in the left eye it is peripherically limited in the upper inner quadrant. Either optic disk is whitish in the temporal half and has a slight reddish hue in the nasal one. The papillary limits are distinct, the vessels normal. Auricles show longitudinal cicatrices. Tympanic membranes are somewhat flat and slightly opaque. Right ear hears whispering at fifteen feet, left ear at ten feet distance. Eustachian tubes are permeable.

Patient now confessed having contracted a chancre in the spring of 1868, followed by

constitutional symptoms, which got well within six weeks under the use of pills. He remained perfectly well until the fall of 1869, when his glans became sore again and a cutaneous eruption appeared on the chest and auricles, which, however, passed off almost without treatment. In the summer of 1871 he suffered, to judge from his description, probably from syphilitic periostitis of the left ulna and tibia, with tuberculous ulcers on the latter and with contracture of the index. Treatment with iodide of potassium continued for a longer period brought about perfect recovery. He married in the spring of 1873, with the full consent of his physician, who considered his constitution freed from all syphilitic poison. His wife presented him in due time with a healthy boy, who, however, died from a pulmonary disease when two years old. No other children were born. His health remained perfectly normal until October, 1878, when he came for the second time under my treatment for paresis of the external muscle of his left eye.

My treatment consisted in mercurial frictions with the gray ointment, of which one drachm was rubbed in every evening. Besides, patient had to gargle and cleanse his gums and mouth very frequently during the day with a solution of chlorate of potassium.

Improvement set in from the tenth day of the treatment, at first with subjective conditions of the patient, but very soon the morbid symptoms passed. He regained flesh and color, and with it his former gay disposition of mind. After the twentieth friction he told me, greatly elated over the fact, that he had had a voluptuous dream during the night, with erection of his penis and ejaculation, which had not happened since the beginning of his constitutional affection.

After forty frictions had been used, the condition was as follows:

Vision of either eye $\frac{1}{8}$. Visual field in the left eye absolutely normal, and only slightly limited in the upper peripheric parts in the right one. Left pupil regular; right pupil slightly contracted and of feeble reaction. Optic disks whitish in the temporal half and reddish in the nasal one.

The right ear hears whispering at twenty-five feet, the left ear at eighteen feet distance. Subjective noises have abated.

Complexion healthy. Muscles firm. Flesh greatly improved. Cutaneous sensibility and sensation of temperature in the lower extremities, plantar reflex and patellar-tendon reflex perfectly restored. Patient walks with a steady and firm gait, turns around rapidly with the greatest ease, has no trouble whatever in the dark, stands in the erect position without the least oscillation of the trunk, walks and even runs a short distance with closed eyes without deviating from the straight line. All other morbid symptoms and all morbid sensations have entirely vanished.

In fact, we should consider the patient restored to perfect health, were it not for a peculiar sensation he still experiences in his left leg and in the ulnar region of his left hand,—which sensation he can only describe as the consciousness of possessing the respective leg and fingers, which he has not on the right side.

Iodide of potassium, to which I now resorted, did not agree with the patient, and I had to give up its use after a few days. The treatment, however, with the fluid extract of sarsaparilla in order to induce perspiration, was very well borne, and greatly helped to remove the last traces of the disease.

When I discharged patient from the treatment, August 29, the condition was as follows:

General constitution normal. No morbid sensation whatever. Virile power restored. Weight, one hundred and seventy pounds. Vision of the right eye $\frac{1}{8}$, of the left eye $\frac{1}{8}$. Manifest hyperopia $\frac{1}{8}$. Limits of the visual field above the average. The right pupil is slightly contracted, the left pupil has normal shape. Reaction on light in either eye normal. Optic disks whitish in the temporal half and reddish in the nasal one. Each ear hears whispering at thirty feet distance. No noises.

My last examination, made April 15 of this year, showed no change in the condition of his general constitution and of his eyes and ears. Patient is able to walk, to leap from a car while in motion, and to ride on horseback with the same ease as in his former best days.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF WILLIAM GOODELL, M.D., PROFESSOR OF CLINICAL GYNÆCOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

Reported by WILLIAM H. MORRISON, M.D.

CYST OF THE BROAD LIGAMENT—TAPPING.

GENTLEMEN,—This girl is 20 years old. Four years ago an abdominal tumor made its appearance and gave a little pain. She was before the class one year ago, on November 5, 1880, at which time she was aspirated. I then held out strong hopes that it would not return.

Here is the fluid that was removed. It is slightly opalescent, perfectly limpid, looking like water; and from this fact I was inclined to think that it would not return. The character of the fluid made me believe that this was a cyst of the broad ligament: that is the only fluid that we get from abdominal tumors which is perfectly limpid. Here is another example of

fluid from a cyst of the broad ligament, tapped April 8, 1881. This is still more limpid. We cannot distinguish the difference between it and spring-water. Allowed to flow into a bucket, we should see the cracks in the bottom magnified.

Here is a similar fluid obtained in 1874. This is also limpid. Here is one removed October 6, 1880. In this there is a little sediment of blood, due to the wounding of a vessel by the aspirator.

When we have a fluid like that removed a year ago from this tumor, our duty is to await developments. If ovarian, in nine hundred and ninety-nine cases out of a thousand, I might say, it will refill. It is said that ovarian tumors are cured in this way; but the truth probably is that the physician has mistaken a cyst of the broad ligament for an ovarian cyst. Cysts of the broad ligament often will not return after tapping, or, if they do, a second tapping usually cures them. In this case the cyst has refilled in one year and one month. The color of ovarian fluid varies in different cases, and sometimes in the same case; for you may get fluid of different characters from different cysts. Sometimes in a small cyst the fluid will be quite clear.

Here is an ovarian fluid removed in February, 1878. On examination it was found to contain the ovarian cells.

Here is another example of ovarian fluid. This is from a lady who had a tumor that had been examined by a great many physicians, who said that it was fibroid tumor of the womb. She had been tapped thirty times. I saw her with Dr. Agnew, and we made the diagnosis of subperitoneal fibroid tumor. The tumor had a pedicle, and I decided to operate to see if it could be removed. I found it to be a solid tumor of the ovary, the first that I had removed; that was in 1876. Since then I have removed two. The error in diagnosis was perfectly warrantable; for it is often impossible to distinguish between a subperitoneal fibroid tumor and a solid ovarian tumor.

The woman from whom this was obtained practically committed suicide. I operated in the old way, with the clamp. She did very well for twelve days. She was strictly enjoined not to get out of bed, but she became restless, and, while the nurse was sleeping and her daughter was watching, at eleven o'clock at night, she slipped out of bed to pass her water. When she attempted to go back, she was seized with a

violent pain and could not get in bed. Her daughter could not lift her, as she was a heavy woman, and, as she was afraid to awaken the nurse, she called the cook, and they put the woman to bed. In two hours they had to send for a physician. I was telegraphed for, and reached her house at seven o'clock in the morning and found her dying. In the act of getting up, the pedicle, which was but slightly attached to the abdominal walls, had undoubtedly been torn loose, and there was an effusion of blood into the abdominal cavity, followed by rapid collapse.

I shall first examine this tumor, and then I shall remove the fluid. I find fluctuation very marked, with dulness on percussion. We cannot decide between a cyst of the broad ligament and an ovarian cyst except by the character of the fluid. I was perhaps wrong in holding out too strong a hope that this would not return. This is the fifth case of cyst of the broad ligament which I have tapped, and I have been obliged to remove only one of them: this was a bursting cyst.

A patient with a bursting cyst will stoop over to lift an article, she feels something give way, has a little pain, has to go to bed for a day or so, and passes a little more water than usual. This is the usual history. The fluid in such cases is so bland that it produces very little irritation. Sometimes it is necessary to give an opium suppository.

I want to show you now how to tap and give as little pain as possible. Take a lump of ice, put it in a napkin, and then make a freezing mixture by rubbing it in salt. Then place it over the point at which you wish to tap; make firm pressure, and in two minutes the skin will be so frozen that she will not feel any pain when the trocar is passed. The proper point for operating is in the linea alba, between the umbilicus and the symphysis.

There are certain dangers from tapping, even with the aspirator. The trocar may hit a vessel in the abdominal wall, or it may hit a vessel in the cyst-wall. We take the linea alba because it contains no blood-vessels. In a woman who is largely distended by a cyst the recti muscles are separated to such an extent that we have a linea alba of large size.

If you have hemorrhage from a vessel in the abdominal wall,—internal hemorrhage,—how do you stop it? By passing beneath

the vessel an acupuncture-needle and tying around the needle a ligature for a few hours. When the hemorrhage comes from a vessel in the cyst-wall it is more dangerous, as you cannot get at it, and in such cases it is sometimes necessary to perform the operation in order to stop the hemorrhage. I have never had serious hemorrhage after tapping, but in one case hemorrhage produced a peritonitis, from which the woman recovered. When the tumor was removed, I found a clot of blood about the diameter of a twenty-five-cent piece and about as thick.

The skin is now sufficiently frozen, and I shall pass the trocar of the aspirator into the cyst. The advantage of this instrument is that we do not get any poison-germs inside of the cyst and we do not get inflammation of the cyst, or at least the danger is very slight. The old-fashioned way of tapping with the trocar was one in which germs from the outside were very apt to get into the cyst, and when they once get in they set on foot inflammation of the cyst, with profound constitutional symptoms requiring the immediate removal of the tumor, and of course under such circumstances the chances of success are not nearly so great.

I have on three occasions removed cysts in which the cyst-wall had broken down and the contents had become purulent. In one of these the inflammation had followed the removal of the fluid by aspiration. In that case the operation was successful. The other two cases had been tapped in the old-fashioned way and were in the last stages of septicæmia: neither of these recovered.

We are going to give this girl this chance, but if the cyst refills we shall remove it. She is very anxious to have it removed. There is no earthly use in giving remedies by the mouth. There is no diuretic that will cause absorption of a fluid enclosed in a cyst-wall: all that we can do is to trust to nature.

What is the difference between an ovarian cyst and a cyst of the broad ligament? The name ovarian tells the story: it is a cyst of the ovary. Perhaps one of the Graafian follicles, instead of bursting in the normal way and passing through the Fallopian tube into the womb, takes on an abnormal growth, and as it gradually enlarges it extends to the other follicles, until the whole ovary is involved. In this way we explain the large mother cyst and the

smaller or daughter cysts. This is the reason why we so rarely find a monocyst of the ovary.

Cysts of the broad ligament are much more rarely met with. There is in the broad ligament a set of little tubules, the remains of a foetal structure, the object of which we do not know. In a cyst of the broad ligament, one of these tubules has probably become enlarged and cystic. These are retention cysts, and are usually monolocular, although it is said that they may be multilocular.

There is another little cyst which occasionally occurs. I have no doubt that many of you have found on the fringe of the fimbriated extremity of the Fallopian tube a little jelly-like globule. I am disposed to think that these become cysts, that they never attain a very great size, but burst when small. I have a lady under my care who every six or eight weeks will develop one of these little cysts. It becomes enlarged and suddenly bursts. One day, while I was examining her, it broke; she had pain, became pale, and had to lie down for a while. I do not think that these are cysts of the broad ligament, or of the parovarium, but that they are these little cysts found at the extremity of the oviduct.

You notice the fluid that has been flowing while I have been talking. It is not as clear as that removed a year ago. It is a little dark in color. I am afraid that she will have to come back. If it had retained its clear color I should have been in hopes that it would not return.

Cysts of the broad ligament are not, as a rule, difficult to remove. They do not often have adhesions to the surrounding parts; but they are sometimes enveloped in the whole broad ligament, which makes them somewhat difficult. Under such circumstances, we are warranted in leaving a portion of the cyst behind. A few years ago it was the custom never to remove a cyst of the broad ligament, but to cut down on the cyst, remove a piece of cyst-wall about the size of a fifty-cent piece, and return the sac, relying on the peritoneum to absorb the fluid that would be secreted, and on the collapse of the walls for the obliteration of the cyst. After this operation some patients recovered; but as ovariectomy became more and more safe, the whole tumor was removed whenever it was possible to do so.

This girl tells me that her employment

compels her to stand on her feet a great deal, and that she has a constant desire to pass her water. We can easily understand how this tumor pressing upon the bladder would cause flattening of its walls.

I shall now remove the canula, compressing the opening with my fingers, and then apply a strip of adhesive plaster. She will be put to bed for forty-eight hours, simply as an act of prudence. It is possible that she might go home at once, but if inflammation should occur we might have to remove the tumor within a few hours. I do not put on a binder, for if I did so I might squeeze some of the fluid into the cavity of the abdomen. In a case of this kind it would, perhaps, cause no trouble, but in an ovarian tumor it would be apt to produce inflammation.

I have removed seven pints of fluid. You can compare this with that previously removed. I shall ask Dr. Formad to examine this carefully to see if he can find the ovarian cell; but I do not think that he will find them in a fluid so limpid as this.

Now, gentlemen, there are certain axioms in regard to tapping.

In the first place, always tap in the linea alba, because of the freedom from blood-vessels and important organs.

Secondly, always aspirate in preference to tapping with a trocar and canula.

The third rule, and the one which I consider the most important rule of all, is always to empty the cyst when you tap. This is a blunder that physicians sometimes make; they take only a little fluid away; particularly if they wish it for microscopic examination, they will withdraw only a hypodermic syringe-ful. What is the result? There will be a constant oozing from that opening, and, as a consequence, peritonitis may be set up, and the patient die within forty-eight hours. That has happened on a number of occasions.

The fourth rule, another good one, and one which I am beginning to appreciate the importance of more strongly, is never to tap or use the aspirator when a tumor presents a great deal of solidity. In such case it is justifiable to tap only when the patient insists on it. Sometimes the patient will not permit the medical operation, but will insist on being tapped. Under such circumstances it may be proper. The danger is that if the cyst contain a great deal of solid matter you will be able to remove only a small quantity of it, the

cyst-wall will not collapse, and there will possibly be oozing of the contents into the peritoneal cavity.

PELVIC PERITONITIS.

Here is a patient who came in yesterday. I have not yet seen her. Let us try to find out what is the matter.

Q. How old are you? *A.* Twenty-two years.

Q. Are you married? *A.* Yes.

Q. How long? *A.* Two years.

Q. How many children have you had? *A.* None.

Q. Why did you come here? *A.* On account of inflammation of the womb.

That is not the answer I wish. She says that because some of her friends or her physician have told her so.

Q. What symptoms have you? *A.* I have pain in the bottom of my stomach, and it feels as if all my insides were coming out. It is only when standing that I feel that.

Q. Are your monthlies regular? *A.* Yes, but very painful.

Q. Do you lose much? *A.* Yes.

Q. How many napkins do you use? *A.* Four or five a day for the first three days, one every day afterwards.

The proper word to use is "guards;" but I did not use it, for she might not have understood me if I should have asked, "How many guards do you use?" Four a day for three days would make twelve: that is too much flow. She tells me, further, that she does housework; that she has been losing flesh for the last week, and has been sick in bed on account of her pains. I am under the disadvantage of not seeing her face (as it is covered by the sheet), for a great deal may be learned from the countenance.

Q. Do you have a good deal of pain in passing water? *A.* Yes.

Q. Do you have much discharge? *A.* I have terrible discharge from the womb.

Q. Do you make water often? *A.* I feel like passing it all the time.

I will tell you what passes through my mind: it is that we have here a pelvic peritonitis,—a localized peritonitis of the broad ligament, in which are situated the tubules of the parovarium of which I have spoken. The products of the inflammation press on the neck of the bladder, causing trouble when she passes water, and also a constant straining.

What is the significance of the discharge? She has had it for more than a week. It is possible that this is specific, but it is very difficult to tell whether it is specific or whether it is an acute attack brought on by causes of which we do not know.

I shall now examine her and see what I can discover. My diagnosis in regard to pelvic peritonitis is correct. I find that the womb is not entirely immovable, but its motion is very limited, and the slightest movement gives her pain. What has caused this? It is due to the lymph which has been thrown out by the inflammatory process.

An excellent analogy is represented by a ship at anchor. A ship at anchor moves with every current, it moves in every direction, but its motion is limited by the anchor. The womb is anchored in the pelvis. It has a certain amount of movement for the purposes for which it was intended. In every act of coition, in every inspiration, in every movement of the body, there is a corresponding movement of the womb. The womb is lying at anchor; but a cold night occurs, the water is frozen, and the ship is no longer movable. A peritonitis occurs, and, instead of ice, plasma is thrown out, the layers of the broad ligament are thickened, and the womb is no longer movable. It feels as though melted tallow were poured around the womb. Just as tallow could be indented, so I can make an impression on this plasma. As I pass my finger around, I find that the roof of the vagina is hard. On the right side the condition is more marked than on the left. On examining the vagina there is a greenish-colored discharge, but that does not enable us to say that it is specific, for I have on another occasion, while making an application of saturated tincture of iodine to the womb, dropped some in the vagina and have had as a result a severe vaginitis with this same-colored discharge. (The patient was now removed.)

But, as this discharge is not a necessary accompaniment of peritonitis, it is my opinion that the disease began in the vagina, and passed up through the womb and Fallopian tube into the abdominal cavity, causing peritonitis. I am by no means prepared to say positively that this is specific, although I am of the opinion that it is. In other words, I believe that she has been infected,—that she has a gon-

orrhœa which has gone through the womb and Fallopian tubes, causing the peritonitis. If I were called before a judge I would not swear to that. I was very glad on one occasion to be able to say that I could not decide from the character of the discharge. I was once called to see a very irate and indignant wife who had a trouble of this kind, and she accused her husband of giving it to her. She asked me if she had not caught it from her husband. I told her, "It is impossible for me to tell from the character of the discharge whether or not it is specific, and, as your husband says that he has no disease, I cannot say that it is specific." I shall never forget that woman, walking backwards and forwards like an infuriated bear. I felt it my duty to shield the husband, as he had made a confidant of me, but he deserved a flogging, for he had a nice wife and three or four children.

I have spoken plainly to you; but I shall not mention gonorrhœa to this woman or her husband, for, suppose the husband is a chaste man, he immediately suspects his wife. I may be mistaken. The best plan is to hold your tongue quiet and not to seek for confidences.

If I am correct in my inferences, this woman will probably remain sterile. This is the reason that strumpets do not conceive, for there are very few of them who have not had gonorrhœa, and it has extended as I have described, covering the ovaries with a layer of lymph. The Graafian follicles are no longer able to pass out, and they are no longer grasped by the fimbriated extremity of the Fallopian tube. A physician in New York has written a paper in which he states that such cases always remain sterile; but I have seen undoubted cases of gonorrhœa, followed, as it almost always is, by peritonitis, which ultimately became pregnant.

This case is interesting to you, for, although you may not have many cases of gonorrhœa coming before you, you will have cases of peritonitis from other causes. It may follow an application to the inside of the womb, the introduction of the sound or a pessary, or a woman will have a miscarriage, catch cold while menstruating, or in some vulnerable cases it may follow a ride over a rough road.

What is the treatment? My advice is to lay all small doses to one side and treat the case heroically.

In the first place, give as much morphia as is necessary to relieve the pain,—if you choose, a hypodermic injection of morphia at first; but I prefer the use of opium by the rectum. I never give less than one grain of the aqueous extract of opium. It is a very good plan to add belladonna by the rectum; but do not put it in the same suppository as the opium. Belladonna is very good for the urinary tenesmus, and it also has an effect in lessening the inflammation. You have to push the opium, but cannot push the belladonna. I also give large doses of quinine, giving in bad cases ten grains every four hours until the patient is completely cinchonized and is deaf. I next put a large poultice of flaxseed or corn meal over the abdomen. If this is covered with rubber or a piece of brown paper greased with lard, it will keep moist and warm for twelve or twenty-four hours, for the rubber or greased paper retains the heat, and the temperature in these cases is always elevated, running up to 103° or 104° in the evening and down to 101° in the morning.

After you have passed the brunt of the disease you must begin to use blisters. In this case the worst is passed, but her temperature is, I am sure, not under 100° . I shall blister her. How shall we blister? Here is a woman who has strangury to a certain extent, and you do not wish to apply a blister that is going to increase the trouble. I always use the cantharidal collodion. I shall paint a blister in this instance three by four inches, putting on three or four layers, and then at once put over this a poultice. This is an almost painless way of raising a blister. I have never seen it produce strangury.

Now, gentlemen, in a case of frank inflammation, such as that produced by a sound, where there is nothing of a concealed character, this treatment will subdue it; but if the peritonitis is produced by sponge tents you have a bad case to treat.

I am sometimes called in consultation to a case of peritonitis by some of my students, and they tell me, "I am giving quinine just as you direct us. I am giving two grains every three or four hours." That is nothing at all. You should never give less than five grains.

You will find certain nervous symptoms present. The woman will be weak and trembling, ready to burst out crying. In such cases I very often give large doses

of the bromides, from sixty to one hundred grains in the twenty-four hours.

If you treat your cases in this heroic way, you will, in the great majority, cure them at the very beginning of the disease.

TRANSLATIONS.

TREPHINING FOR HEMIPLÉGIA AND EPILEPSY OF TRAUMATIC ORIGIN.—Dr. Demons read before the Société de Chirurgie a report of an unusual operation. A man had two years before fallen upon his head and received a scalp-wound on the right side; he was unconscious for a time, and subsequently he had frequent headache and a crossed paralysis of the left arm and the right leg, which persisted for five months. He then became well, and remained so until last April, when he had an outbreak of epilepsy, the convulsions recurring every fifteen minutes for five or six days; he then became hemiplegic of the entire left side; his intelligence was also obscured.

In the absence of any local indication of depressed fracture, the site of the operation of trephining was selected opposite the middle of the fissure of Rolando. The periosteum being lifted up, a fracture was detected about an inch long; upon this the crown of the trephine was placed. The dura mater was slightly thickened; in the arachnoid he found and removed a small tumor formed by a hard substance; the subjacent cerebral surface was a little roughened. Following the operation, the hemiplegia and convulsions disappeared; there only remained some loss of tactile sense in the left hand, which had persisted since the accident. Success was attributed to antiseptic measures and closure of the wound.

In the discussion, M. Lucas Champonnière said that cases of trephining where there is nothing to indicate the site of the lesion on the surface of the cranium are rare, and that the above is therefore an instructive case: he believed that the operation, however, was indicated, even had a fracture of the skull not been found. He also referred to a case of trephining for traumatic epilepsy, nine years ago, in which the cure had been permanent.—*La France Médicale*, No. 66.

THE DANGER OF FAT EMBOLISM AFTER RESECTION OF THE KNEE.—Dr. P. Vogt,

of Greifswald, in a communication to the *Centralblatt für Chirurgie* (No. 24), refers to a case of fungous arthritis of the knee-joint in a girl 12 years of age, in which resection was performed, but the patient died in twenty-four hours, the autopsy showing that fatty embolism of the lungs was the cause of the fatal collapse. At the time of the operation the bone was found to be very fatty; after the section some pressure was unavoidably made upon the end of the femur in straightening the knee, and the wound was closed after the operation. The author in such cases recommends that no pressure shall be made upon the ends of the bones, and that the discharges shall be allowed free vent; where this cannot be obtained, and there is much fatty degeneration of the bone-structure, he believes that amputation would be preferable.

In this case of fatty embolism the temperature was sub-normal; in other cases reported it has been higher, but this, the reporter thinks, is attributable to an intercurrent pneumonia; and a case also is reported in which this condition under discussion was associated with miliary tuberculosis and a febrile temperature.

RADICAL TREATMENT OF A FORM OF HYSTERIA.—In place of Baker Brown's operation of clitoridectomy for hysteria depending upon masturbation, Prof. N. Friedreich arrives at the same results by deep cauterization of the clitoris and nymphæ with nitrate of silver. In eight cases in which this was carried out, the results were surprising. Although the greater part had been affected by contractures or neuralgic phenomena (in one there was complete paralysis, with aphonia), the success was complete, after the failure of other modes of treatment. In the majority of the patients masturbation seemed to have been the cause of the disorder. Following the treatment there was no disturbance of the menses; indeed, in one case they became more regular than before.—*Virch. Archiv.*

LAPAROTOMY IN IRREDUCIBLE UMBILICAL HERNIA IN AN INFANT.—Dr. G. Pagenstecher operated upon an infant, twenty-four hours old, for a large umbilical hernia, which required incision previous to reduction. Antiseptic precautions were adopted, but no spray was used. Although the peritoneal cavity was opened, the little

patient made a good recovery, the greater portion of the wound uniting by first intention.—*Bull. Gén. de Thérap.*, July 15.

SPIDER'S WEB AS AN ANTIPERIODIC.—Dr. Oliver, having given spider's web in eighty-three malarial cases, concludes—first, that it can cure intermittent fever of quotidian or tertian type; second, the dose for an adult is thirty grains; third, it is less prompt than quinine, and therefore should not be employed in grave cases; fourth, it has a more pleasant taste than quinia; fifth, relapses are less frequent.—*Bull. Général de Thérapeutique* (July 15), from *Zeit. d. a. ö. Apoth. Vereins.*

CANCER OF STOMACH SIMULATING PERNICIOUS ANÆMIA.—The clinical observation that some cases of pernicious anæmia are in reality due to cancerous disease of the stomach-walls is well illustrated by Dr. Richard Neale by the report of the following case (*Practitioner* for July). The symptoms complained of by a gentleman, 61 years of age, were anæmia, debility, and dyspnœa on exertion; there was no emaciation, and there was entire freedom from pain. The only gastric symptoms detected were distaste for food, indigestion, flatulence, and, on one occasion, the vomiting of a fluid like currant-jelly. The temperature was 102°; subsequently the morning temperature fell to 97.8°, but it was generally normal or sub-febrile. Death occurred from progressive weakness in about ten months. At the autopsy the posterior surface of the stomach was found to be involved in a soft, cancerous mass, breaking down readily under the finger. The disease encircled the œsophageal opening, but did not extend around the pylorus. The vomiting of currant-jelly substance at the commencement of the disease was the only positive objective symptom of gastric cancer. The singular deficiency of symptoms of local organic disease was supposed to be characteristic of the softer characters of cancer, the pressure of scirrhus upon surrounding structures being more intense and being more likely to cause local disturbance and pain.

NATURE VERSUS ART.—Dr. Cory, of St. Thomas's Hospital, says the *Medical Press*, entertained the view that inoculation from a true Hunterian chancre is not possible. He therefore submitted himself to experiment with a view to testing the theory. After four times failing of success, he at length succeeded, a hard chancre on the arm being the result. Notwithstanding that the sore had been cut out, secondary and tertiary symptoms have followed in due course, and now, we regret to say, Dr. Cory is wholly incapacitated from regular work.—*Louisville Medical News.*

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, AUGUST 25, 1883.

EDITORIAL.

MARRIAGE FROM A MEDICAL STAND-POINT.

THE venerable editor of the *Journal of the American Medical Association*, in a recent issue, propounds the startling query, "Do moral principles change? Are they subject to the Darwinian law of evolution?" Although this important question is unanswered, it is left to be inferred, since it was raised in connection with our Code of Ethics, that it is not within the province of any State medical society to invalidate the Decalogue or to rescind the moral law as it applies to the relations existing between members of the profession or between the profession and the public. Since this point has been satisfactorily settled, it may be as well for a moment to extend the application of the query,—Do moral principles change? Is there one code of morals for physicians, for instance, and another for surgeons, or, let us say, one for general practitioners and another for specialists? Take gynæcology for example. A writer in the *American Journal of Obstetrics*, in discussing a case of chronic invalidism in a neurotic and hysterical young girl, weak in body and mind, concludes, after consultation, that the only remedy that remains is—marriage! As all others have failed, this must be the panacea. Without a word of sympathy for the unfortunate individual who is to take this forced card in the hymeneal lottery, or without apparently a thought as to the possible unfitness of such a mental and physical wreck for undertaking the duties of wife and mother, the recommendation is given, and marriage is to be tried like any other

therapeutic expedient. Failure may mean domestic misery and unfaithfulness for the husband, but marriage from a medical stand-point has consideration only for the patient: the husband is left entirely out of the question. We think, however, that in such a case, unless moral principles have changed, the physician has incurred a grave responsibility. Would he willingly consent to have his own son unite his life with such wretchedness? Let us take a surgical illustration. A young man acquires syphilis. Coming into skilful hands for treatment, one of the questions he is sure to ask is, "How soon can I safely marry?" It is not proposed that the young wife or her family should be informed that the husband has a syphilitic taint. Not at all. That would violate professional confidence. It is equally useless to suggest that the patient find some young woman who has been afflicted in like manner with himself, with whom he could unite on equal terms. No; that is not at all his idea; he wishes to marry in his own set, perhaps some bright and pure young girl, respected and loved by all who know her, because a reformed rake is said to be very particular in this respect. What is the duty of the physician? Shall he give his consent to such an unequal marriage, even if two years of penance under mercury have been offered to atone for previous excesses under Aphrodite? Unless moral principles have greatly changed, he cannot recommend any such union. His own daughter he would shield from such a marriage. Can he consistently sacrifice another on such an altar?

In a recent issue of a most respectable medical journal, a contributor, speaking of the treatment of inveterate masturbation and spermatorrhœa, said that he had occasionally sanctioned the immorality of a mistress; and the same recommendation, within the writer's knowledge, has been repeatedly given in a public clinic by surgeons, in the presence of large numbers

of young men. In the same class of cases marriage has also been urged by other medical authorities. Moral principles must certainly have sadly changed if medical authorities can advocate such doctrines without question or comment from the profession.

Unless expediency has taken the place of justice, falsehood of truth, and wrong and right have become convertible terms, we beg to answer the query at the beginning of this article in the negative.

THE ELECTRIC LIGHT IN MEDICINE—A NEW BATTERY FOR ILLUMINATING PURPOSES.

MANY efforts have been made since the general introduction of the electric light for domestic illumination to adapt the same principle to laryngoscopy and similar purposes. The polyscope and other sources of illumination were readily devised, but thus far there have been found practical difficulties in the way of obtaining the required supply of electricity. The storage battery of Trouvé apparently met all the requirements for medical purposes, and was at once called into service; unfortunately, it was found to be unreliable and uncertain in its action, and its use was found to involve a loss of from forty to sixty per cent. of the electrical energy. Although this apparatus, in spite of its disadvantages, has been utilized in medicine to a certain extent, yet the attention of inventors has been constantly directed to a better source of electricity. For the recently-invented illuminator of Helot and Trouvé, the electricity is derived directly from a cell of peculiar construction; and we observe that a similar one has been invented in England for this purpose, although the details of its construction have not yet been made public. A correspondent of the *Lancet* announces that a patent has been granted to Mr. James

Gray, of Gateshead, for a portable battery, for which extraordinary claims are made. It is described as contained in a neat ebonite box, three and a quarter inches square by six inches high, divided by partitions into four compartments or cells. It is carried by a leather strap, and is about as handy and portable as a carriage clock. It is claimed that it will keep a three-candle incandescent lamp at full illuminating power for ten hours without requiring to be touched, or keep four inches of platinum wire at a white heat. The statement is also made that it will drive a Gramme ring producing a motive power of two hundred foot-pounds at the rate of two hundred revolutions per minute for six hours, at a cost for materials of one shilling. The correspondent speaks of this as an electrical marvel; and certainly, if the claims made for it are not extravagant, it will be a great acquisition to medicine. Unfortunately, it is the fate of new inventions to be introduced by enthusiastic advocates. In this case we hope that further experience may only confirm the claims of the inventor.

SUGGESTIONS FOR IMPROVED WATER-SUPPLY.

NOW that the Board of Health has taken steps to abolish the few remaining street-pumps in the thickly-settled parts of the city, we hope that those in daily use in the cemeteries will not escape. Neither the drainage from cesspools nor that from dead bodies can be called a desirable addition to our drinking-water. If a few sewers, that now empty into the Schuylkill, could have their contents diverted into reservoirs where they might be rendered innocuous by the use of chemical agents, the drinking-water of this city would be very much improved, especially if no more cemeteries are established along the banks of the river.

LEADING ARTICLES.

NAPHTHALIN.

A NUMBER of communications have appeared within the last few years commending the use of naphthalin in surgery, both as an active antiseptic agent and as a convenient and efficient dressing for wounds. It has no poisonous action upon higher animals, but is very destructive to insects, infusoria, and all kinds of germs. Being cheap, clean, and easily obtainable, it has been largely used in hospital practice in some of the larger institutions in Germany, especially at the Strasburg Clinic, and with results which warrant its more extended employment.

Naphthalin is a coal-tar product, discovered by Garden in 1820. It is a white, crystalline body, a hydro-carbon (formula $C_{10}H_8$), in many respects resembling camphor. It is inflammable, insoluble in water, evaporates slowly at all temperatures, and its vapor is destructive to insects. The specific gravity at ordinary temperatures is about 1.1: it melts at 79.2° (C.), and boils at about 214° . It sublimes in thin scales at 150° (C.). Although insoluble in watery menstrua and in discharges from wounds, it is taken up by steam, so that traces of it can be detected by simple distillation of urine and organic substances. It is insoluble in alkalies and weak acids; on the contrary, it is easily dissolved by ether, at ordinary temperatures, in hot alcohol, in concentrated sulphuric acid at an elevated temperature, and in various oils and fats. Owing to its volatility, the atmosphere of a room may be easily saturated with it; it is only necessary that the naphthalin should be placed in a vessel of water, the temperature of which is then to be raised to boiling, when the vapor will permeate the room, and will condense on the walls; or some naphthalin may be sprinkled on the floor, and the same result will be attained, although more slowly. The naphthalin has a penetrating odor, and a taste like coal-tar, from which it is derived. Since it is contained in such large proportion in the refuse from gas-works, and since it is so little used for other purposes, this gives the remedy the additional advantage of being low in price.

As early as 1842 an article was published by Rossgnol,* in which the resemblance of

naphthalin to camphor was pointed out, and its alcoholic solution recommended as a cheap substitute for spirits of camphor for sprains, bruises, etc. Its destructive effects upon the lower forms of life were also recognized, and its use in medicine as a vermifuge suggested. It was also recommended to be used locally as an ointment for chronic conjunctivitis. Dupasquier† in the same year discusses more thoroughly the therapeutics of this remedy, and highly praises it as an *expectorant* of the first rank. Where prompt stimulation of the bronchial mucous membrane is desired, or is urgent, naphthalin has produced excellent results; for instance, in chronic or senile bronchitis and asthma, where it was given in doses of .15 to 2 grammes (gr. ijss to xxx). In a monograph by Ernst Fischer,‡ from which the references of this article are principally derived, the expectorant effect of the naphthalin is attributed principally to the volatility of the remedy and its antiseptic action upon the air-passages in its escape from the body by the lungs, so that where putrefactive changes are taking place in the secretions, and the development of germs is progressing, it restricts or stops such processes, and thus favors healthy action.

The United States Dispensary, by Wood & Bache, for 1851, contains also a notice of the employment of an ointment of naphthalin, by Emery,§ in the treatment of psoriasis, who applied it with success in a number of cases. However, but little attention was given to it until its energetic antiseptic action was utilized in the treatment of parasitic skin-diseases, and later, when antiseptic wound-dressings were required, its special advantages began to be recognized. According to the observations of Fischer,|| at the Strasburg clinic no injurious or unpleasant effects have been observed, although it has been in use for nearly three years. Notwithstanding its very free application to wounds, and constant inhalation of its vapor, no ill effects were ever produced. From physiological experiments upon animals it was ascertained that even large doses given by the stomach only gave rise to diarrhoea without inflammation or constitutional disturbance. It had no obvious effect upon the central nervous system, and spectroscopic

† Journal de Pharmacie et de Chimie, December, 1842.

‡ Das Naphthalin in der Heilkunde und in der Landwirthschaft. Mit besonderer Rücksicht auf seine Verwendung zur Vertilgung der Reblaus, Strassburg, 1883.

§ Bull. Gén. de Thérapeutique Méd. et Chir., 1842.

|| Loc. cit.

* Annuaire de Thérapeutique, 1843.

Aug. 25, 1883]

Medical Times Advertiser



"EVERY SUPERIOR ARTICLE DEXTER IMITATION"

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Johann Hoff's Extract of Malt.

The undersigned, SOLE authorized Agent in the United States and Canada of JOHANN HOFF, of Berlin, Vienna, and St. Petersburg, for the sale of his well-known and valuable MALT EXTRACT, begs leave to call the attention of the profession specially to the fact that imitations of this Extract are offered for sale by various houses, and that Mr. Johann Hoff has instituted legal proceedings to protect his rights, and warns against any of these SPURIOUS IMITATIONS.

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CONCENTRATED NITROUS ETHER.

As is well known, Spirits of Nitrous Ether, U. S. P., consists of

PURE NITROUS ETHER	5 parts by weight.
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We have found that it is possible and practicable to prepare

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and we can furnish it in any quantity to those druggists who prefer to prepare their own Spirits of Nitrous Ether.

The chief advantage to be gained is the saving of bottles and the transportation. As 1 pound of the pure ether will make 20 pounds of the spirits when simply mixed with 19 pounds of alcohol, it is evident that the pharmacist can make the spirits at any time in convenient quantity.

We would call attention to the following properties of Pure Nitrous Ether:

It is a bright lemon-yellow colored, volatile liquid. Its specific gravity at 15° C. (59° F.) is about 0.900.

It should be only slightly acid at most, and should not liberate carbonic acid gas when shaken with a crystal of bicarbonate of potassium. Mixed with nineteen times its weight of alcohol it makes Spirits of Nitrous Ether having all the properties required by the U. S. P. 1880.

It is decomposed if kept in a warm place or in direct sunlight. It should be kept in well-stoppered bottles in a cool, dark place. It is inflammable, hence should be kept away from lights or fires.

If handled with the same care as ordinary ether, it is not dangerous, nor does it readily decompose.

We furnish this article, in pounds, at such a price that the pharmacist can make Spirits of Nitrous Ether, of full strength, at the same cost as he can purchase it of manufacturers.

The demand is increasing as this preparation becomes better known. We shall be pleased to receive your orders.

W. H. Schieffelin & Co.

examination of the blood failed to reveal any changes. It has no stupefying or narcotic influence, and, although it may be detected in the urine, it does not give rise to the toxic symptoms so often caused by carbolic acid.

When applied to the unbroken skin, naphthalin produces no irritation nor any particular sensations. In eczema it prevents the formation of crusts and the retention of secretions. The same effects are observed when it is used as a dressing for wounds: no irritation, no crusts, no pent-up discharges. Granulation is not interfered with, and cicatrization goes on undisturbed; the secretions, however, usually appear more serous than under other dressings. In all foul sores, compound fractures, ulcerating chancres, fetid cancers, the free application of naphthalin has the effect of altering the condition of the wound, removing the offensive characters. If the secretion be profuse, the naphthalin should be frequently renewed, as the dressing acts upon the cause of the putrefaction rather than on the putrefactive products, which require to be removed in order to correct the bad odor entirely.

Among the advantages of this agent as a dressing for wounds, Fischer enumerates:

1. The simplicity of the application.
2. The absolute innoxiousness of this agent.

3. The cheapness.

The disadvantages are:

1. Its insolubility in water and in the discharges.
2. Its penetrating odor.
3. The profuse secretion in those cases where large wound-surfaces are dressed with naphthalin.

Since experience has demonstrated that no real contra-indication, in a proper sense of the word, exists to the use of naphthalin, it results that it is especially suitable as an antiseptic:

1. In all cases of kidney-disease or disposition to kidney-disorder.
2. In patients with a sensitive skin, or in whom there exists special tendency to re-sorption from the wounded surface. That is to say, in all cases of individuals very susceptible to carbolic acid, naphthalin should be preferred as a surgical dressing.
3. In children, carbolic acid should be superseded by naphthalin in combination with some fluid or soluble antiseptic agent.

4. In wounds situated deeply in cavities of the body, as in the rectum or vagina, where secretions easily undergo decomposition, also in wounds made in removing tumors, after resections, etc., naphthalin should be used.

5. In wounds attacked by erysipelas, naphthalin should be freely applied.

Finally, naphthalin is most useful in sustaining hospital hygiene. Not only wounds but the instruments and sick-rooms can be kept aseptic.

As regards the application of this remedy, but few modes have been adopted. In the form of a dry powder it is dusted on the surface of simple, healthy wounds, for filling up deep incised wounds with offensive secretions, and also it may be used upon the dressings. In the treatment of skin-diseases, the pure crystallized naphthalin, or the resublimed white naphthalin of Trommsdorf, in Erfurt, have been used, and are identical in their effects. In the various forms of vegetable parasitic diseases of the skin, naphthalin has proved to be an efficient remedy: it is here generally used in combination with some form of ointment. In scabies, herpes tonsurans, eczema marginatum, and favus its results have been so favorable that it deserves a further trial by dermatologists. The addition of a few drops of oil of bergamot completely covers its peculiar odor.

From experiments upon various animal fluids upon the development of schizomycetes and the various germs of putrefaction, it has been conclusively demonstrated that naphthalin possesses anti-zymotic properties, if indeed it is not the very best of the known and tried anti-bacteritic substances. This action upon micrococci and bacteria of various kinds renders naphthalin a very valuable agent for the treatment of zymotic disease. Its usefulness in affections of the respiratory tract has already been referred to, and its harmlessness to the higher forms of life renders it especially worthy of more extended trial in various disorders supposed to be connected with the development of germs, such as scarlet fever, diphtheria, tuberculosis, etc. Experiments in this direction have been already commenced, but the results have not been sufficiently conclusive to report.

The bactericide properties of naphthalin have been turned to account in viticulture, and it has proved itself to be the most efficient remedy against the dreaded phylloxera,

or disease of the vines, when thoroughly applied to the smaller roots of the vines, the manner of its employment being carefully indicated by Fischer in the monograph already referred to, by whom its employment is most earnestly and enthusiastically advocated.

NOTES FROM SPECIAL CORRESPONDENTS.

LETTER FROM PATERSON, NEW JERSEY.

FATAL CASE OF OPIUM-POISONING.

A CASE illustrating the deviousness attending the dispensing of drugs occurred here recently. About six weeks since, a child of L. Lowenthal, aged between four and five months, being ill with diarrhœa, Dr. Marsh prescribed for it "*pulv. cretæ aromat. cum opii, Br., grs. xii. in chart. no. viii, t. in die,*" which was compounded at one of our drug-stores by preparing a reduced quantity and dispensing according to recipe. On Sunday, 15th instant, the child becoming again affected with relaxed bowels, Dr. Marsh was asked about the renewal of the prescription, and he gave his sanction. The box, with number and directions, was returned to the store; but the senior clerk who had prepared the first supply being absent, his assistant undertook its composition. Being unable to find either of the aromatic powders containing chalk, he substituted simple aromatic powder, adding the lesser part of a grain of opium (three-tenths) as the equivalent of the amount contained in the powder called for. Having mixed and divided it, he delivered it with the proper directions. The parents noticed that these powders were larger (double size, they say) and of a darker color than those first obtained, but, suspecting nothing wrong, they administered one at about eight P.M. The child did not swallow it well,—resisted, and seemed to choke. In a few minutes (estimated by the mother at three or four) its eyes began to roll and its countenance to change. It soon seemed bereft of sense and motion. The powders were returned to the druggist, with a notification that there was something wrong about them. The clerk pronounced them all right,—that there was a dark and a light powder of this description. Nevertheless, he procured the true drug from a neighboring store, and dispensed it in place of that returned. When asked for the original package, or a powder from it, he said that he had destroyed it. He, however, retained it in his pocket, and on retiring for the night deposited it in a chamber-utensil. The child, meanwhile, seemed in such a desper-

ate condition that Dr. Marsh was summoned. Arriving about nine P.M., he immediately diagnosed opium-poisoning, the symptoms being insensibility, interrupted slow breathing, thread-like pulse, and intensely contracted pupils. Vigorous measures were taken to counteract the poison and keep the heart going, the electrical battery being in almost constant use. At nine A.M. (16th), according to the testimony of one of the consultants, the patient was in a profound stupor, nearly pulseless, the skin dark in color and cold, the pupils contracted to the size of a pin's head, and the respirations eight per minute. These and other symptoms led him to believe it a case of opium-poisoning. The child lingered until four P.M., and then died.

One of the physicians engaged on the autopsy testified: "I found the lower part of the lungs greatly congested, almost amounting to inflammation. There was no air in the lower part of the lungs. In the right side of the heart there was a great deal of watery blood. The rest of the organs were healthy, with the exception of the brain, which was somewhat congested." In answer to questions, he said, "This state of congestion might have been due to some other cause besides the taking an overdose of some narcotic. I thought the child was in the first stage of inflammation of the lungs. The lower lobes were almost solidified. The condition would have been sufficient to produce death in so small a child." When asked, "Did you find any evidence of summer complaint or cholera morbus?" he said, "No; but I did not open the intestines. From what I saw of the body, the cause of death was the condition of the lungs."

Dr. Marsh testified that, "when first seen, the patient seemed to be in a state of collapse, as though it would die in a few minutes, as though something was pressing upon the brain,—a sudden oppression of the nervous system. There were no lung-symptoms. The respiration was irregular and slow, interrupted. During treatment it became a little more frequent. The cause assigned before death, from the symptoms and surroundings, was narcotic poisoning. The child received a larger dose than I prescribed." The jury, after a deliberation of two or three hours, returned the following verdict:

"We the undersigned jurors, sworn to inquire into the cause of death of Clara Lowenthal, do hereby find that she came to her death by accidental poisoning, caused by opium in powder, as prescribed originally by Dr. Marsh, and renewed at the time of the child's death by the advice of Dr. Marsh, when applied to, and compounded by John Lane, who the jury believe is censurable for carelessness in not properly mixing the ingredients of said prescription." The "carelessness" complained of by the jury is said to be the substitution resorted to.

FATAL EXPLOSION OF GASES.

The following may be of interest to persons having inflammable materials stored about their premises.

Near the time of the great national holiday, a boy, seeing upon the sidewalk what appeared to be an empty whiskey-barrel, concluded that he would see how a fire-cracker would detonate in its interior, and so dropped his lighted explosive into the bung-hole. The result greatly exceeded his expectations, for it encountered some explosive gas, which, being true to its principles, loudly resented this intrusion, rending the barrel violently asunder, and sending its component parts whirling through space. The experimenter received such injuries from the hurtling fragments that he spent the following fortnight in hospital, ruminating, doubtless, on the unexpected liveliness of his special celebration.

The following has an equal interest, and is far more tragical. It throws light on the narrowness and greed of builders and the thoughtlessness of those who occupy their fabrics.

About the middle of the present month, a firm of painters and paper-hangers, occupying what appears above ground as a spacious and well-ventilated warehouse, received an order for a barrel of paraffine. This, with other combustible material used by the trade, was stored in an excavation beneath the store, destitute of any ventilation or light whatever. It was entered by a trap-door, and the material raised to the store-floor by a hand elevator worked by a windlass and ropes. On this occasion one of the employes went below to secure the barrel, a man standing at the elevator to lift it when ready. As he was unable to find it in the darkness, one of the firm descended, confident that he could find it with his eyes shut. Neither, however, could discover it, and a lantern was called for, which was lighted and lowered. No sooner did it reach the region saturated with the gases than an explosion occurred, which swept the man away from the lifting-apparatus, who, scorched and dazed, retreated from the place of danger. One of the victims escaped out of the blazing pit with some assistance, and, with the remnants of his charred clothing still burning, rushed into the street, where a thoughtful neighbor extinguished the burning garments by wrapping a coat about the sufferer. The burns were so severe that death ensued the following day.

The flames rapidly extended, and the fire department were quickly at work in quenching the conflagration. As the second man known to have been in the pit at the time had not appeared, he was sought for in the cellar, and was there found dead, lying in a pool of water.

Thus were sacrificed by the thoughtlessness of the tenants—it may be by the criminal niggardliness of the builder or owner—the

lives of two young men, greatly esteemed, and bidding fair to become citizens of the first rank in the State and in the community.

E. T. BLACKWELL, M.D.

July 28, 1883.

CINCINNATI.

THE health of Cincinnati is generally much better in summer than in any other season of the year, and the present summer is no exception to the rule. As a consequence, many of our physicians take a vacation and allow their patients time for recuperation. Drs. P. S. Conner, W. W. Seely, James T. Whittaker, Joseph Aub, and William Carson are among the prominent physicians who are away recruiting. As a large number of our wealthiest citizens are also away, the sick remaining can be very easily attended by stay-at-home physicians.

The New Board of Health.—The Superior Court did not see fit to appoint a Health Commissioner for Cincinnati, so the Common Council have taken the matter in hand and done what we all feared they would do,—viz., appointed a Health Board. The average ward politician of this city has an exalted idea of sanitary matters, as is witnessed by the character of this (let us hope) unique Board of Health. Five saloon-keepers and a doctor of unsavory reputation embody the wisdom that is to regulate all matters pertaining to the public health. With expected sagacity, they have appointed an insurance agent of some notoriety in local politics as health officer, and have divided the city into twenty districts, over which is placed a ward physician with the munificent salary of three hundred dollars per annum. With a health board and health officer of such material as we have, the doctors are getting ready to reap a rich harvest during the ensuing year.

Medical Clinics.—There are in the city five or six free medical clinics, which probably treat fifteen thousand cases a year. Fully half of these cases are well able to pay a reasonable fee for medicine and physicians' services. Some resort to the free clinics after having spent all their money on quacks; others resort to the free dispensary with the excuse that their usual physician has failed to cure them and they desire the extraordinary experience of the dispensary doctor. The large proportion of the patrons of the free clinics are foreigners and negroes, and many of them go to the clinics and demand treatment and medicines as a right. The physicians do an immense amount of gratuitous work in our free dispensaries and hospitals. Not even do they get or deserve credit for charity in most instances. A hospital or clinical position is too frequently sought after simply to give prominence to the physician and to assist him in his private practice.

A. B. T.

August 15, 1883.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CLINICAL conversational meeting of the Society was held at the hall of the Society, on Wednesday, June 20, 1883. Dr. J. M. Barton read the following notes of a case of marked improvement in phthisical symptoms after amputation for relief of *caries necrotica* of the left hand.

Henry M., æt. 36 years; tanner by trade. In the early part of this year I found the patient in the German Hospital.

He had suffered since 1880 with lung-symptoms and with *caries necrotica* of the bones of the carpus, metacarpus, and phalanges of the left hand: he had no history of syphilis or of inherited phthisis.

There was an extensive deposit, which had undergone softening, in the apex of the right lung: it included almost the entire upper lobe. Over several other portions of the chest, both anterior and posterior, similar deposits, of limited extent, were found: they had also broken down.

He had loss of appetite, hurried respiration, and profuse night-sweats; his evening temperature, of which I show the record, was between 101° and 102° , and occasionally 103° ; his expectoration was purulent, and about $f\frac{3}{4}$ vi in the twenty-four hours.

The condition of his hand added greatly to his distress: it was the seat of a constant offensive discharge, and was swollen and painful. It interfered greatly with his rest at night.

To make him more comfortable, to remove a source of depression, and with a slight hope of removing one source of the pulmonary deposit, I advised removal of the arm. My colleagues agreed with me at once as to the propriety of removing the arm, the only question being if the patient could stand the operation and the anæsthetic.

The dangers were submitted to the patient, who stated that he was so wretched he did not care if the operation proved fatal.

The operation was performed rapidly under the first anæsthesia of the ether. The stump healed quickly, the temperature immediately began to go down, and since the fourteenth day after the operation has been on two evenings only over 100° ; it is now normal; his expectoration has diminished to less than $f\frac{3}{4}$ ss; his night-sweats have entirely ceased; his appetite is normal.

The condition of his lungs has much improved. He has gained ten pounds in weight, and he is now earning his living as door-keeper to the Hospital.

There are several points worthy of note in this case.

1st. The relief of a surgical disease associated with phthisis was not followed by increase in the lung-trouble, as is said to occur when

we relieve an anal fistula under such circumstances.

2d. That as a mere matter of comfort to the patient it is well to remove painful surgical affections, even in advanced lung-disease.

3d. The chart which I have shown is in its earlier part, with its high evening and low morning temperatures, nearly a typical phthisis chart. Most of his constitutional disturbance was regarded as proceeding from his lung-troubles; but the rapid improvement in his temperature-record, occurring long before any decided improvement could have taken place in the lungs themselves, shows that the high temperature probably mainly arose from the hand.

4th. What influence the inflammatory deposits in the hand had in producing and increasing the lung-troubles is, of course, uncertain; but the very decided improvement in the lungs makes it appear as though the condition of the hand had more to do with the condition of the lungs than merely the depressing effects of the pain and suppuration.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

THE American Ophthalmological Society held its nineteenth annual meeting at Hotel Kaaterskill, Catskill Mountains, New York, on July 18 and 19, 1883. The sessions were presided over by Henry D. Noyes, M.D., of New York, who, in place of a formal address, simply made a few introductory remarks.

Among the papers read were some of especial value, but, as usual, they were generally of high order, and well represented the recent advances in this department of medicine. Dr. Hasket Derby, of Boston, contributed an essay upon "The Influence upon Refraction of Four Years of College Life," which was illustrated by statistics of the last four classes which had graduated from Amherst. The investigation showed a large amount of myopia, increasing progressively with the length of the term of study.

Dr. Russell Murdoch, of Baltimore, exhibited some new forms of instruments and appliances for cataract operations. Dr. Henry S. Schell, of Philadelphia, reported a case of prim. tubercle of the iris in a boy, in whom morbus coxarius afterwards developed. Dr. O. F. Wadsworth, of Boston, also reported a case of tuberculosis of the ciliary muscle and iris in a girl three years old. Dr. Swan M. Burnett subsequently exhibited a specimen of tubercle of the choroid.

Dr. S. F. McFarland related his personal experience with prismatic glasses, originally used for slight divergent strabismus. Prisms gave much assistance, and with their aid he obtains satisfactory binocular vision. Dr. O. F. Wadsworth discussed the apparent curva-

ture of surface produced by prisms, in a paper illustrated by numerous diagrams by Dr. Pierce.

Dr. J. A. Spaulding, of Portland, Maine, reported a case of sympathetic neuro-retinitis, with remarks, and reported a case in which severe hemorrhage succeeded the operation. Dr. David Webster, of New York, gave a summary of thirty-five cases of cataract-extraction, with twenty-seven successes. Some notes on ocular therapeutics were contributed by Dr. W. W. Seely, of Cincinnati.

The treatment of detachment of the retina was considered in a paper read by Dr. W. F. Mittendorf, of New York. He advocated quietude, rest, freedom from irritation, and the use of a mydriatic, the administration of *jaborandi* or *pilocarpin* in order to hasten the absorption of effusion, preferably by hypodermic injection. The use of a bandage either of flannel or of rubber was also recommended for making pressure. He reported three cases successfully treated.

Dr. William S. Little reported two cases of *ectopia lentis* (both congenital), one symmetrical, the other non-symmetrical.

Dr. George T. Stevens, in a short communication, recommended the use of nitrous oxide as an anæsthetic in ophthalmic operations.

A contribution to the operative treatment of glaucoma was read by Dr. Albert G. Heyl, of Philadelphia, in which ligation of the frontal artery, then opening the supraorbital in order to allow a few ounces of blood to escape, and finally closing this artery also with a ligature, were recommended.

Dr. Charles J. Kipp, of Newark, reported several cases of sarcoma of the choroid, and also described a case of ossification of the choroid in a young man.

Dr. Theobald, of Baltimore, read a paper on trituration of the anterior cortical layers of the lens by pressure on the cornea after iridectomy, and while the anterior chamber is still empty, as suggested by Foerster, of Breslau.

Dr. Gustavus Hay, of Boston, read an article describing the astigmatic pencil.

On the second day the first paper read was on vaseline cerate, which was recommended as a convenient basis for ointments intended for applications to the eyelids, by Dr. Theobald, of Baltimore.

Dr. H. Knapp, of New York, read the clinical report of a case of blindness from retinal thrombosis in consequence of facial erysipelas.

Dr. W. H. Carmalt, of New Haven, reported a case in which changes of refraction resulted from a blow upon the right eye.

A further modification of cataract-extraction in difficult cases was reported by Dr. E. W. Bartlett, of Milwaukee, Wisconsin, by which two preliminary iridectomies were recommended, one upwards, the other downwards.

Dr. Gruening, of New York, read a paper entitled "Blepharoplasty according to the English Method."

Dr. McKay, of Wilmington, reported a case in which a successful cataract-extraction was followed by loss of the eye, which was attributed to sewer-gas poisoning. The same reporter also related a case of sympathetic neuro-retinitis occurring during pregnancy.

Some of the difficulties in making a differential diagnosis in glaucoma were illustrated by Dr. L. Howe, of Buffalo, by the report of a case occurring in a child four months old.

Dr. E. E. Holt, of Portland, Maine, read a paper upon "Comotio Retinæ," in which some of the direct and indirect effects of blows upon the eye were considered.

Dr. F. B. Loring, of Washington, reported one case of injury to the eyes after hanging.

Dr. McKay reported three cases of coloboma of the choroid.

Dr. Charles Stedman Bull, of New York, presented a paper on two cases of *exophthalmoplegia externa*, associated with disease of the optic nerve from brain-tumor, with an account of the post-mortem examination, which was read by title only.

The following gentlemen were elected

OFFICERS FOR 1883-84.

H. D. Noyes, M.D., New York, *President*; William F. Norris, M.D., Philadelphia, *Vice-President*; R. H. Derby, M.D., New York, *Secretary and Treasurer*; Drs. Loring and Róosa, New York, *Publication Committee*.

Next annual meeting on the third Wednesday in July, 1884, at the same place.

AMERICAN OTOLOGICAL SOCIETY.

THE sixteenth annual meeting of the Otological Society was held at the Hotel Kaaterskill, New York, on July 17, Dr. J. S. Prout, of Brooklyn, Vice-President, occupying the chair.

Dr. W. W. Seely, of Cincinnati, read the clinical report of a case of primary epithelioma of the ear, in which removal of the entire auricle was required, the operation being performed with the thermo-cautery. The disease had apparently originated from traumatism,—the bite of a rat which had remained unhealed for a long time.

The recognition of brain-complications in aural affections was the important subject considered in a communication read by Dr. J. A. Andrews, in which the details of five cases were given; and Dr. Chas. H. Burnett reported a case of mastoid disease, in which death from pyæmia occurred, notwithstanding perforation of the bone was performed.

A case of acute desquamative inflammation of the external auditory canal, followed by acute otitis media, mastoiditis, and chronic meningitis, with final recovery, was reported

by Dr. Read J. McKay, of Wilmington, Delaware.

Dr. E. E. Holt, of Portland, read the notes of a case of teratoid tumor of the lobe of each ear, with seven recurrences, in a woman 29 years of age, following perforation for gold ear rings. The same reporter also read a paper containing some observations on the hearing-power under different conditions of aural disease.

Dr. Charles J. Kipp called attention to the association of aural disease with simple sparkling synchysis of the vitreous humor, illustrated by cases.

Dr. S. Sexton, of New York, read a very able paper on the significance of the transmission of sound to the ear, through the tissues, in ear-disease, and also exhibited some photographs illustrative of aural affections.

Dr. H. Knapp reported an interesting case of desquamative otitis media finally cured by boracic-acid treatment.

The following papers were read by title only: External and Internal Inflammation of the Mastoid, with Cases, by S. Sexton, M.D., of New York; one on The Intermittent Perception of Sound, with summary of Results of Treatment, etc., by J. A. Andrews, M.D., of Staten Island; and a report of a case of sebaceous gland in immediate proximity to the auricle, by C. A. Todd, M.D., of St. Louis.

The following gentlemen were elected

OFFICERS FOR 1883-84.

President.—Charles H. Burnett, M.D., Philadelphia.

Vice-President.—J. S. Prout, M.D., Brooklyn.

Secretary and Treasurer.—J. J. B. Vermeyne, M.D., New Bedford, Massachusetts.

Committee of Publication.—Drs. J. J. B. Vermeyne, C. J. Blake, and J. Orne Green.

The next annual meeting to be held on the day before the third Wednesday in July, 1884, at the Hotel Kaaterskill.

GLEANINGS FROM EXCHANGES.

FRACTURE OF THE LARYNX BY DIRECT VIOLENCE.—James Oliver, M.B., reports the autopsy of an interesting case of fracture of the larynx by direct violence,—an accident of infrequent occurrence, and one which from a medico-legal point of view is of great interest. The thyroid cartilage in its normal state is of such a structure that interference with its continuity can only result under very untoward circumstances. Like other structures of a similar nature in the human frame, however, the laryngeal cartilages are liable in advanced life to become the seat of ossific deposit, and then to be more easily fractured. The injury in my case had evidently resulted from the

free use of a piece of wooden rail. The post-mortem appearances were in every respect those of death by suffocation, and need no mention. The larynx, with the pharynx, tongue, etc., was removed *en masse*, and examined. The thyroid cartilage, more especially the right half of it, was broken up into many pieces, one of which hung free in the lumen of the tube, evidencing great violence. Ossific change was very extensive. Corresponding with the inferior border of the body of the lower maxilla was a wound, incised in appearance, running from the middle line outwards to the left, and extending for about three inches. The wound was gaping, and exposed the bone for about an inch and a half. The left extremity of this wound was deeper than the right, and running from it was a smaller one, half an inch in length, directed towards the left angle of the mouth, and almost at right angles to the large wound. The junction of the two wounds had a thready appearance; they were apparently caused by a blow against the hard bone underlying. A small linear abrasion, about a quarter of an inch in width, could be detected on the skin over the prominent part of the thyroid cartilage, which corresponded closely with others very similar, but much more extensive, on the scalp. The facts taken together all pointed to fracture by direct violence. Throttling is the more usual cause of fracture of the larynx; but when death results in this way the assailant usually maintains his grasp of the neck till the victim shows no sign of life, should circumstances permit of such. We must not, therefore, when this is the cause of death, expect to find ecchymosed spots over the larynx; for the blood being pressed out leaves parchment-like marks of a contused appearance, to which the blood never returns. —*Lancet*.

GLYCOSURIA WITH URINE OF LOW SPECIFIC GRAVITY.—Prof. Cameron in certain cases has found sugar in urine of a specific gravity of 1015, 1008, 1007, and even 1005. Some of these were merely temporary drops from an ordinary gravity of 1025 to 1035. There was no doubt as to the purity of these low specimens from any admixture with water after being passed. In the urine of 1005 there was a mere trace of urea, and the solids consisted almost entirely of sugar and chloride of sodium. The writer gives an important caution as to applying the sugar test, in the following words: "In examining urine it is always necessary to look for sugar, no matter whether the specific gravity of the fluid may be normal or otherwise. I occasionally find urine with a very high specific gravity, and with a, so to speak, diabetic appearance, to be quite free from sugar. On several occasions, in specimens of urine believed to contain sugar, I could not detect a trace of that substance. A few months ago I examined the urine of a man who had been

treated for diabetes. The urine had a specific gravity of 1035, and on being boiled with Fehling's solution it gave a copious precipitate of cuprous oxide. There was something in the appearance of the precipitate, and in the slow way in which it made its appearance, that led me to suspect that it was not produced by sugar. This proved to be the case, for on treating the urine with yeast no carboic acid (save a mere trace) was evolved. The presence of large quantities of urates in urine causes a brown precipitate with Fehling's solution. The urates, even when abundant, do not always separate as the characteristic 'brick-dust.' I have found very large quantities of urate of ammonium in urine which remained clear on standing, but which gave a brown precipitate on being boiled with Fehling's solution. When testing for sugar in urine it is necessary to ascertain whether or not urates are present in large quantities. If they are, they can be precipitated by the addition of hydrochloric acid, and the urine filtered or decanted from the precipitate can then be satisfactorily tested for sugar with Fehling's solution."—*Dublin Journal of Medical Sciences.*

RENAL CYSTS AND OVARIAN GROWTHS TREATED SIMULTANEOUSLY BY OPERATION.

—At the Royal Medical and Chirurgical Society of London, recently, Dr. J. Knowsley Thornton read a report of an interesting case in which cysts in connection with both kidneys were opened and drained, and a tumor of the right ovary removed, the patient remaining in good health. E. M., a single woman, aged 27, was admitted into the Samaritan Hospital in November, 1877, under the care of Mr. Spencer Wells. She had had a child born alive at full term when she was only fifteen. When seventeen she had inflammation of both kidneys, and from that time had been failing in health, and had been unable to lie on her right side for fully a year. When admitted, she had a fluctuant tumor of considerable size in the right side of the abdomen, with a red, tender, and pointing swelling in the right loin behind this tumor. There was a smaller tumor in the left side of the abdomen, which occupied an exactly similar position to that in the right side, but did not distinctly fluctuate. There was nothing wrong with the urine, and no trouble with bladder or kidneys, except pain across the loins and in the lower abdomen, which was not, however, constant. Menstruation was regular. The swelling in the right loin was freely incised by Mr. Wells under Listerian management, but nothing to account for its presence was found, and no communication appeared to exist between it and the kidney or ureter. It contained fluid very like that from an ovarian cyst, with an immense quantity of cholesterine. It was dressed antiseptically and drained, and in six

weeks the patient went home well, all trace of the cyst having disappeared. Six or eight weeks afterwards she had an attack of gout in both feet; then the wound opened, and a large discharge of fluid with much cholesterine took place, and the wound gradually healed up again. In January, 1880, she was readmitted under the author's care, with a tumor of the right ovary, for which he performed ovariectomy. While the abdomen was open he examined the kidneys and ureters. The right kidney was large and sacculated, and its ureter was much enlarged, especially at the pelvic brim. The left kidney and ureter appeared quite normal. The recovery after the ovariectomy was rapid, but soon after getting up the swelling in the right loin reappeared, with fever, etc., and she was obliged to return to bed. It was poulticed antiseptically until it broke, and then drained as before, and she left the hospital apparently well in three weeks from the time it burst, and about six weeks from the ovariectomy. In six weeks she returned with a swelling in the left iliac region in the situation of the left ureter; this was opened and drained antiseptically, and again in about six weeks she went home well. Fifteen months later the wound in the right side again opened, and discharge went on for fourteen months without apparently affecting her health at all. It has now closed again for two months, and she is in excellent health. The left side has not given any further trouble. After detailing the case, the author makes remarks and suggestions as to the probable pathology of these various lesions, and invites suggestions from the Fellows as to this very curious case, and reports of any others at all like it.—*Medical Times and Gazette.*

THE RISKS OF MASSAGE.—Dr. Julius Althaus, M.D., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, deprecates the abuse of massage, a practice often now employed where it can be of no service. "It is well known that at various times epilepsy, idiocy, and some forms of insanity have been treated by massage and gymnastics; but, fortunately, we now hear very little of such therapeutical aberrations.

"It appears to me that diseases of the brain and spinal cord must, on account of the anatomical situation of these organs, be inaccessible to the influence of massage, which can only be applicable to more superficial parts of the body. Apart from this, however, it is important to consider that many of the most important diseases of these organs are of an inflammatory or irritant character, either primarily or secondarily; and this should make it self-evident that massage should not be used for their treatment, even if the suffering parts could be reached by it. I will here only allude to many forms of cerebral paralysis from hemorrhage, embolism, and

thrombosis, which are followed by sclerosing myelitis of the pyramidal strands; and most forms of primary lateral, posterior, or insular sclerosis of the spinal cord.

"That which may be good for developing and strengthening healthy muscles, or muscles which have been enfeebled by disuse or certain local morbid conditions, etc., is not for that reason suitable for the treatment of muscular paralysis owing to central disease. In most cases of lateral and insular sclerosis, which are, unfortunately, now much treated with massage and exercises, rest is indicated rather than active exertion; and overstraining of the enfeebled muscles acts prejudicially on the state of the nervous centres. I have recently seen quite a number of instances in which the central disease had been rendered palpably worse by procedures of this kind; and in a case of cerebral paralysis which was some time ago under my care, the patient had, after four such sittings, been seized with collapse, which nearly carried him off."—*British Medical Journal*.

BILLROTH'S METHOD OF OPERATIVE TREATMENT OF CANCER OF THE TONGUE.—Both lingual arteries are first ligatured; the mouth is then kept open by a speculum, and all diseased teeth opposite the ulceration are extracted. The gum is next separated from the inside of the lower jaw with the raspator. Excision of the floor of the mouth is then effected by means of scissors and forceps. The bleeding points are ligatured, and the tongue, being drawn forward, is finally extirpated. After the separation of the organ, permanganate of potash, either in powder or in watery solution, is applied to the wounded surface, and a drainage-tube, of the thickness of a finger, is inserted through the floor of the mouth. Through this the various discharges escape, and diphtheria of the mouth, cervical phlegmon, and broncho-pneumonia do not occur in such cases when properly drained. The patients are fed by means of a stomach-tube, until the drainage-opening has quite closed.

The proceeding is not so severe as the methods of Langenbeck and of Regnoli and Czerny; and the immediate results of the operation are more favorable than by any other plan,—namely, 84.2 per cent. of recoveries. The deaths were caused by septicaemia (acute or chronic) or by pyaemia. In seventy-one cases ten radical cures have been obtained (fourteen per cent.) by Prof. Billroth; while in three hundred and seventy-three instances of mammary excision only fifteen radical cures have resulted.—*Medical Record*.

GASTROSTOMY FOLLOWED BY FATAL PHLEGMONOUS GASTRITIS.—In a case of organic stricture of the oesophagus occurring in a man 54 years of age, where a diagnosis of malignant disease of the tube in its lower portion was made, Mr. H. W. Page performed

gastrostomy in the manner indicated by Mr. Bryant. A permanent gastric fistula was successfully established, and the patient had apparently recovered from the operation, and was regaining flesh, when about two weeks after operating he began to vomit, and, although his efforts brought up very little, they caused great pain. His temperature, which had been normal for several days, again rose, he passed into a collapse, and died thirty-six hours after the sickness began. Post-mortem examination showed generally diffused acute parenchymatous gastritis without secondary deposits. The growth in the oesophagus was found to be scirrhus. Listerian dressings had been used, and it was believed that the operation did not directly cause the attack of this rare form of gastritis; it was not of septic origin, and there was no phlegmonous condition or erysipelas about the external parts, nor any evidence, microscopical or otherwise, that the inflammation started from the margins of the wound.—*Lancet*, July 14.

GAULTHERIA IN RHEUMATISM.—At the New York Medical and Surgical Society, Dr. Flint stated that the results of the trial made of this substance in thirteen cases at Bellevue Hospital served to show rather better results from gaultheria than those which are ordinarily obtained from salicylic acid. The oil of wintergreen was the preparation used, and it was administered several times a day in ten-drop doses in flaxseed tea, which renders it less disagreeable to the taste and to the stomach. In some of the cases the alkaline treatment was employed at the same time. Dr. Ball stated that Dr. Kinnicutt had used the oil of gaultheria in a number of cases of acute rheumatism with even better results than those mentioned by Dr. Flint. It was administered in milk, and was less disagreeable when so taken than salicylic acid or salicylate of soda.—*New York Medical Journal*, June 30.

REPAIR OF LACERATED CERVIX.—As the result of thirty-one operations for laceration of the cervix uteri in the practice of Dr. Ely Van de Warker, reported in the *American Journal of Obstetrics*, the operator gives the following: uterine displacement unchanged in sixteen cases; uterine displacement improved in eleven cases; uterine catarrh unimproved in ten cases, and improved in eleven cases; subjective symptoms unimproved in three cases, and improved or entirely relieved in sixteen cases; nutrition improved in eighteen cases, and remaining unchanged in five cases. Other treatment was found necessary in twelve cases.

QUININE INTOXICATION.—A correspondent of *Die Pharmaceutische Post* says that as a remedy for the relief of quinine intoxication, as he calls the over-stimulation caused by quinine in excessive doses, he has used

ergot in several cases, and finds that to neutralize the cerebral effect of one gramme of quinine at least one and a half grammes of powdered ergot, or one gramme of ergotin, must be employed. With this remedy the most annoying tinnitus may be entirely removed during the administration of quinine.
—*Quinologist*.

MISCELLANY.

A MODEL BOARD OF HEALTH.—Cincinnati has a Board of Health at last, and we hope that it will remain the sole specimen of its kind, "wrapped in the solitude of its own originality."

The Common Council has elected five saloon-keepers and one doctor, all "practical politicians," to take charge of the health of the city. They are all Democrats except the doctor,—which is a good thing for the Republicans. The utter scorn of, and contempt for, public opinion manifested by this action of the Common Council is something very remarkable, the more so when it is remembered that an epidemic of cholera is impending, and that Cincinnati is in no condition to meet it, its water-supply being in special danger of contamination, its sewerage defective, and its soil in many places polluted by cesspool and privy soakage.

"Whom the gods would destroy they first make mad," and this action of the Council ought in itself to be almost sufficient evidence to prove that the members are insane and should be placed under skilled treatment in a public asylum devoted to such cases. This would certainly be the result in the case of a private individual who treated his business interests in a similar manner.—*Sanitary Engineer*.

BRAIN-WEIGHT IN BOYS AND GIRLS.—The statement of MM. Manouvrier and Budin that sex has no influence upon brain-weight has been called in question by M. Gustave Le Bon. Opposed to the views that the influence of sex is nothing more than the influence in height, and if the females, as a whole, are surpassed by the males in brain-weight, it is simply because the weight of the body in the females is much below that of the males, he places the results of investigation. From a comparison between boys and girls of the same weight, M. Le Bon shows that the male children in the great majority of cases exceed the female in their cranial circumference. At the same age, height, and weight of the body, the female brain is still notably smaller than that of the male.—*Bull. Soc. Anthropol., Paris: Science*.

CHOLERA COMMISSIONS.—A commission from England, organized by and under the charge of Surgeon-General W. Hunter, M.D., has arrived in Egypt, and is engaged in in-

vestigating the cholera epidemic. The sanitary conditions discovered are of the worst kind. The inhabitants live in the midst of filth and in defiance of hygienic laws. Pasteur having offered to organize a commission for the same purpose, his proposition has been endorsed by the Hygiene Commission, and he has set off for Egypt with some collaborators.

Dr. OSLER.—Dr. William Osler, Professor of Physiology in McGill University, Montreal, has just been elected a Fellow of the Royal College of Physicians of London. This distinguished honor is a just appreciation of the excellent scientific work done by Dr. Osler.—*Medical News*.

PROFESSOR RUDOLPH VIRCHOW has resigned from the Association of German Physicians, the Association having publicly censured him for writing a note of thanks to an apothecary, Brandt, who sent him a box of pilulæ helveticæ (the formula of which is published) during a recent sickness. This note stated that the pills had been beneficial to Prof. Virchow, and Brandt, without his knowledge, published it as a testimonial. The Association was too hasty, apparently, for Prof. Virchow denies that he gave a testimonial at any time for these or any other pills.

A MEMORIAL TABLET to the late Prof. Skoda, of Vienna, was unveiled with some ceremony on the 13th ult. The tablet is placed on the house in which Skoda lived and died, and the municipality have also, in honor of the illustrious physician, changed the name of the street to "Skoda-gasse." There was a large attendance of the university students on the occasion, and, after a few words from Prof. v. Arlt, Prof. Schrötter, a pupil and friend of Skoda, made the speech of the day, in which he alluded to Skoda's labors not only in the cause of medical science and education, but in sanitation.—*Boston Medical and Surgical Journal*.

THE appointment of Thomas Dwight, M.D., as Parkman Professor of Anatomy in the Medical School of Harvard University has lately been announced. Dr. Dwight succeeds Dr. Oliver Wendell Holmes, who resigned nearly a year since, having himself succeeded Dr. Dwight's grandfather, the late Dr. John C. Warren, some thirty-five years ago.—*Boston Medical and Surgical Journal*.

OXIDE OF ZINC AS A SUBSTITUTE FOR IODOFORM.—In the treatment of wounds Dr. Petersen, of Kiel, considers zinc oxide a good substitute for iodoform. It is cheaper, and is not poisonous.

HONORS TO MEDICAL MEN.—The honor of baronetcy has been conferred upon Dr. Andrew Clark and Mr. Prescott Hewett, of England. Dr. Banks, of Dublin, has been offered, and declined, the inferior honor of knighthood.

The queen has knighted Mr. Edwin Saunders, who has been her dental surgeon for many years.

CREMATION AS A MEANS OF PREVENTING THE SPREAD OF CHOLERA.—The Municipal Council of Paris proposes to establish crematories in three of the principal cemeteries of Paris, which, in anticipation of cremation becoming legal, are to be used in case of a cholera epidemic breaking out.—*Paris Letter to Lancet.*

DR. ARCHAMBAULT, physician to the Hôpital des Enfants, has just died, after a long and painful illness. One of the most distinguished pupils of Trousseau, he particularly distinguished himself, like his eminent master, in the operation of tracheotomy,—not so much for his manual skill, however, in its performance, as for his great discrimination in the selection of appropriate cases, and their able management.

BROMIDE OF SODIUM IN SEA-SICKNESS.—Mr. T. M. Kendall reports (*British Medical Journal*) the results of his treatment of two hundred cases of sea-sickness. He confirms the views of the late Dr. Beard, that bromide of sodium is the most efficient of all remedies. He found that in doses of ten grains, three times a day, it was effectual. Mr. Kendall condemns the too indiscriminate use of oranges, lemons, champagne, and brandy.

BRITISH MEDICAL ASSOCIATION.—The fifty-first annual meeting of the British Medical Association was held at Liverpool, from July 31 to August 4, inclusive. It was largely attended, and was altogether a successful and satisfactory gathering.

DR. CALVIN ELLIS has resigned the position of Dean of the Harvard Medical School, and Dr. H. P. Bowditch has been elected his successor.—*Boston Medical and Surgical Journal.*

DR. JOHN A. OCTERLONY has been appointed Professor of Obstetrics and Diseases of Women and Children in the University of Louisville.

NOTES AND QUERIES.

THE third and last volume of Agnew's Surgery will be ready on September 1.

THROUGH an erroneous statement in some of the New York papers, many of our friends and customers at a distance have been misled into the belief of the total destruction of our establishment by fire.

We have the gratification of informing them, by this means, that, although the damage to us has been considerable, the chief portion of our works was saved, and our business is progressing as usual.

While the favors of our customers will generally meet with their usual prompt attention, we ask the kind indulgence of our friends should any of their orders be slightly delayed. We expect to have the destroyed buildings rebuilt within a few months, when our facilities will be even more ample than before for the transaction of our business.

HANCE BROTHERS & WHITE,
Manufacturing Pharmacutists and Chemists.
PHILADELPHIA, August 11, 1883.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM AUGUST 4 TO AUGUST 18, 1883.

BAXTER, JEREDIAH H., CHIEF MEDICAL-PURVEYOR U.S. ARMY.—To proceed to San Francisco, California, via St. Louis, Missouri, on public business connected with the Medical Department, and on completion thereof will return to his station. Paragraph 1, S. O. 185, A. G. O., August 11, 1883.

MCPARLIN, THOMAS A., LIEUTENANT-COLONEL AND ASSISTANT-MEDICAL-PURVEYOR.—Relieved from duty in charge of the purveying depot in San Francisco, California, to take effect September 1, 1883, and will then proceed to New York City and relieve Assistant-Medical-Purveyor Ebenezer Swift of the charge of the purveying department in that city. Assistant-Medical-Purveyor McParlin will transfer all funds and public property in his possession to Medical-Storekeeper Henry Johnson, who, until further orders, will perform the duties of acting-assistant-medical-purveyor at the purveying depot in San Francisco. Paragraph 5, S. O. 183, A. G. O., August 9, 1883.

MAGRUDER, DAVID L., LIEUTENANT-COLONEL AND SURGEON.—Leave of absence extended one month. S. O. 89, Military Division of the Missouri, August 4, 1883.

FORWOOD, WILLIAM H., MAJOR AND SURGEON.—To proceed to Fort Washakie, Wyoming, and Fort Ellis, Montana, on public business, and return. S. O. 87, Military Division of the Missouri, August 2, 1883.

WOODWARD, JOSEPH J., MAJOR AND SURGEON.—Leave of absence granted on account of sickness by S. O. 34 extended six months. S. O. 179, A. G. O., August 4, 1883.

BURTON, HENRY G., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Fort A. Lincoln, D. T., and assigned to duty at Fort Assiniboine, M. T. Paragraph 1, S. O. 141, Department of Dakota, August 11, 1883.

BARNETT, RICHARDS, CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one month on surgeon's certificate of disability. Paragraph 2, S. O. 149, Department of the East, August 10, 1883.

BYRNE, CHARLES B., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Fort Craig, N. M., and assigned to duty at Fort Lewis, Colorado. Paragraph 3, S. O. 161, Department of the Missouri, August 6, 1883.

LAUDERDALE, JOHN V., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for two months, to take effect on or about the 15th instant. Paragraph 2, S. O. 99, Department of the Missouri, August 6, 1883.

BENHAM, R. B., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Fort Assiniboine, M. T., and assigned to duty at Fort A. Lincoln, D. T. Paragraph 2, S. O. 141, Department of Dakota, August 11, 1883.

KANE, JOHN J., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in the Department of the Missouri, and assigned to duty in the Department of the East. Paragraph 5, S. O. 183, A. G. O., August 9, 1883.

CARTER, WILLIAM F., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in the Department of Texas, and assigned to duty in the Department of the East. Paragraph 5, S. O. 183, A. G. O., August 9, 1883.

BANISTER, JOHN M., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in the Department of the Missouri, and assigned to duty in the Department of the East. Paragraph 5, S. O. 183, A. G. O., August 9, 1883.

OWEN, W. O., JR., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To proceed from Vancouver Barracks to Fort Walla-Walla, W. T., and report to the commanding officer of the latter post for temporary duty. S. O. 101, Department of the Columbia, July 27, 1883.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING AUGUST 18, 1883.

SURGEON GEORGE A. BRIGHT, temporary duty at Naval Rendezvous, Philadelphia.

SURGEON JOHN L. NEILSON, temporary duty on board Receiving-Ship "Franklin," Norfolk, Virginia.

ASSISTANT-SURGEON WILLIAM MARTIN, Navy-Yard, Pensacola, Florida.